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THE WORKS OF

JAMES WILLIAM GILBART, F.R.S.

IN SIX VOLUMES.

VOL. III.

THE LOGIC OF BANKING.

THE

LOGIC OF BANKING:

A FAMILIAR

EXPOSITION OF THE PRINCIPLES OF REASONING,

AND THEIR APPLICATION TO

THE ART AND THE SCIENCE OF BANKING.

BY THE LATE

JAMES WILLIAM GILBART, F.R.S.

ONE OF THE DIRECTORS OF THE LONDON AND WESTMINSTER BANK, AND FORMERLY GENERAL MANAGER.

LONDON:

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NOTICE.

The executors of the late Mr. Gilbart, in placing before the public a reprint of his works, deem it right to state, that no alterations have been made in the original text, beyond the correction of dates and the omission of some obsolete matter; but that the works are issued in accordance with the provisions of his will, and remain as they were left by the Author.

PREFACE.

In my "Logic for the Million," I advised my readers, as a means of forming a habit of reasoning, to associate their reasonings with their daily avocations.* I afterwards thought I might exemplify my own instructions, by selecting from my writings on Banking such extracts as might illustrate those principles which I had expounded in "Logic for the Million." I accordingly read with this view the works I had published on Banking, and thus were formed the first three parts of the present work. The large type is, for the most part, a transcript from the work on Logic, and the extracts in small type are from my works on Banking. This union of literary productions, not originally intended to have any connection with each other, may serve to indicate that my writings on Banking are in accordance with the principles of Logic, and that my writings on Logic are adapted for practical application to the business of Banking. It may be objected that some of the examples are not sufficiently controversial. To this it may be replied, that Reasoning is not always engaged in the cause of controversy,—that argument sometimes assumes the form of exposition,—and that the most effective kind of Logic is that by which a reader is led insensibly to adopt the opinions of the writer in a manner which will neither suggest doubt nor provoke disputation.

This is not the first attempt that has been made to associate the principles of reasoning with a branch of practical science. Mr. T. S. Baynes, in the introduction to his translation of the

* A reprint of the "Logic for the Million," will form the 6th volume of Mr. Gilbart's Works.

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Port Royal Logic, observes, in reference to some theological opinions advanced by the authors of that work:—

"The favourite study or profession of the writer would generally determine from what branch of science the examples should be taken, and the source from which they were thus selected often gave a distinctive epithet to the logic. Law and divinity have been specially favoured in this way. Thus, not to go beyond English works on Logic, I have, in my own collection, one called *The Lawyer's Logicke*, by Abraham Fraunce, the poet, written while he was at Lincoln's Inn, and copiously illustrated by examples taken from legal authorities; another entitled *The Divine Logike, serving especially for the use of divines in the practice of preaching, and for the further help of judicious hearers, and generally for all, by Thomas Granger, preacher of God's word*, which is a tolerably full Ramist logic, with theological examples; and a third, dedicated *To the illustrious His Excellency Oliver Cromwell, Generalissimo of England, Ireland, and Scotland, Chancellor of Oxford, &c., and to the most renowned his General Council of Officers*, which contains about as much Scripture doctrine and history as is to be found in most catechisms."

I have not seen either of the above-mentioned works. The only work of a similar kind that has come under my notice, is, "A Treatise on the Methods of Observation and Reasoning on Politics," by Sir George Cornewall Lewis, the late Chancellor of the Exchequer.

There are but few of the principles or operations connected with the science or the art of Banking that are not noticed to some extent in this volume, though the discussion of none is continued to a wearisome length. The book will appear to be a collection of extracts; but it should be observed, that these extracts are from the author's own writings, and in their present form will probably be more agreeable to the practical banker or the banking student than in their original arrangement.

J. W. G.

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THE LOGIC OF BANKING.

PART I.

THE INTRODUCTION TO REASONING.

THIS book is written upon the Art of Reasoning, and its application to the Science and the Art of Banking. But it seems proper before we attempt to reason, that we should understand something of the Name and Nature of the Art of Reasoning—of the Subjects on which we Reason—of the Utility of Reasoning—of the Disposition of Mind we should possess while engaged in Reasoning—and of the Information that we should previously acquire. These several topics will therefore form the subjects of the five following Sections, which, taken together, are called "An Introduction to the Art of Reasoning."

SECTION I.

THE NAME AND NATURE OF THE ART OF REASONING.

THE art of reasoning is called Logic. But you know Shakspeare has said—

> "What we call a Rose,
> By any other name would smell as sweet."

In the present case we have no occasion for any name. We might simply say the "Art of Reasoning," in the same

way as we say the art of nursing, the art of teaching, the art of dancing, or the art of fencing

There is, however, a convenience in giving distinct names to distinct branches of knowledge. But have a care of supposing that because an art or a science has got a hard name, there must be something very difficult in the art or science itself. Many of our arts and sciences were taught by the Greeks, and when our learned men first wrote upon them in English, they very naturally called them by their Greek names. Thus, the word logic is derived from a Greek word (logos) that signifies discourse. But these words have no natural connexion with the arts and sciences to which they are applied. You will have made no unimportant step in a knowledge of the art of reasoning, when you at all times recollect that the names of things are quite distinct from the things themselves. All the processes of reasoning can be as clearly described in "Household Words" as in those Greek words in which they are usually expounded. To reason clearly and forcibly, it is not necessary that you understand any other language than your own.

We give the name of *Reasoning* to that operation of the mind, whereby we infer one proposition from two or more propositions. These two or more propositions are called the premises, and the proposition inferred is called an inference, or a conclusion. These premises, and the conclusion, taken together, are called an argument or a syllogism. Thus—If every Joint-Stock Bank has more than six partners, and the Bank of Messrs. Coutts & Co. has not more than six partners, then we infer that the Bank of Messrs. Coutts & Co. is not a Joint-Stock Bank. So—If all the Joint-Stock Banks are excluded from the clearing house, and the London and Westminster Bank is a Joint-Stock Bank, then we conclude that the London and Westminster Bank is excluded from the clearing house. And if the distance from the Bank to the Great Western Railway is not more than five miles, and the cab fare is at the rate of sixpence a mile, then we argue that the cab fare for the whole distance from the Bank to the Great Western Railway, cannot be more than two shillings and sixpence.

Under the word *Reasoning* we include what is denoted by *arguing, proving, inferring, confirming, objecting, refuting,* and all similar words, in the sense in which they are popularly understood. The following is a more extended example of reasoning:—

Now, I ask you, why don't you keep a banker? Since the Scotch system of banking is established in London, why should not the keeping of a banker be as general in London as in Scotland? You say you have been in business several years, and have never kept one. Of course, if no banker would take your account you could not do otherwise; but now there are bankers willing to take your account. But you say, you can do without a banker. Of course you can. The question is, not whether by possibility you can do without a banker, but whether you cannot do better with one? But you reply, it would not be worth any banker's while to take your account. That is for his consideration, not for yours. The question for you to decide is, not whether your keeping a banker would be of use to him, but whether it would be of use to yourself. I shall point out to you some of the advantages.

In the first place, by keeping a banker, your money will be lodged in a place of security. You have now 50*l.* or 100*l.*, or perhaps sometimes 200*l.* that you keep in your own house; you take it up into your bedroom at night, and when you go out on Sunday you carry it in your pocket. Now you may lose this money out of your pocket—the till may be robbed by your servants—or your house may be broken open by thieves—or your premises may take fire and the money may be burnt. But even should you escape LOSS, you cannot escape ANXIETY. When you have a little more money than usual, you have fears and apprehensions lest some accident should occur. Now you will avoid all this trouble by keeping a banker.

The banker will not only take care of your money, but also of anything else you commit to his charge. You can get a small tin box with your name painted on it, and into this box you can put your will, the lease of your house, policies of insurances, and any deeds or other documents that require particular care. You can send this box to your banker, who will take care of it for you; and you can have it back whenever you like, and as often as you like. If your premises are insured, it is clearly improper to keep the policy on the premises: for if the house be burnt the policy will be burnt too; and where then is your evidence of claim upon the insurance office?

Another advantage is the saving of time. When you receive money you will send it in a lump to the bank: and when you pay away money you will draw cheques upon the bank. Now to draw a cheque takes up much less time than counting out the money that you have to pay,

and perhaps sending out for change because you have not the exact sum. Besides, you sometimes hold bills which, when due, you have to send for payment; now you can lodge these with your banker, who will present them for you. And when you accept bills, you will make them payable at your banker's, instead of making them payable at your own house. Now in all these cases there is a great saving of time; and besides, your bills, from being made payable at a bank, will be considered more respectable.

Another advantage of keeping a banker is, that it will be a check upon your accounts. I need not speak to you, as a trader, of the importance of correct accounts. Your banker's book will be an authentic record of your cash transactions. If you make a mistake in your trade books, the banker's book will often lead to a detection of the error. If you have paid a sum of money, and the party denies having received it, you can refer to your banker's account, and produce your cheque, which is as good as a receipt. By means of a banker's account, you could trace your receipts and payments, even after a number of years had elapsed; and hence disputed accounts could be readily adjusted, and error, arising from forgetfulness or oversight, be speedily rectified.

I could mention several other reasons why you should keep a banker. But what I have said will be enough to induce you to make a trial; and when you have once opened an account, you will find so much convenience from it, that you will require no further reasons to induce you to continue it. If it should not answer your expectations, you can, whenever you please, close it again.

If a man who understands grammar hear a person say, "I *keeps* an account with a banker," he will know, from general practice, that the language is improper; but he will, moreover, quote the rule, that "a verb should agree with its nominative case in number and person." Now, a collection of such rules form grammar, or the art of speaking correctly. So, if a man hear a person say, "All men are robbers, for a man has just robbed the bank," he will know from his own common sense that this is not sound reasoning; but if he has studied logic, he will also cite the rule, "Universals cannot be inferred from particulars." Now, a collection of all these rules form logic, or the art of reasoning correctly; and the man who has a knowledge of these rules, and is correct and ready in applying them in practice, is called a logician. A man may reason accurately without rules. But if he can

give the rules, he will have more confidence in the truth of his reasonings. He will also be better able to perceive the incorrect reasonings of others, and to show the soundness or unsoundness of any opinions propounded for his consideration.

These practical rules of reasoning collected together form the *art of reasoning*, in the same way as a collection of rules for speaking and writing with propriety form the art of speaking and writing with propriety. The one art is called logic—the other art is called grammar. These two arts are useful to each other. Thoughts are expressed in words. If we think clearly, we shall speak clearly, and when we are learning to arrange our words with accuracy and order, we are learning to think with accuracy and order.

A person who has acquired a knowledge of grammar will afterwards speak and write grammatically, without ever thinking of the rules of grammar. So a person who has acquired a knowledge of logic, will afterwards reason logically, without ever thinking of the rules of logic. The rules will have become so deeply fixed in his mind that he will habitually reason accurately; and by practice he will come to reason promptly and forcibly. It is the chief business both of grammar and of logic to teach us how to avoid errors. Grammar teaches us how to avoid the use of words and sentences that are contrary to its rules. But a beautiful or a powerful style of writing must arise from the constitution of our own minds, or the peculiar direction of our studies, and is not to be acquired merely by an observance of grammatical construction. So logic teaches how to know and to discard bad arguments. To be able to reason promptly and forcibly, depends upon our attainments in knowledge—the constitution of our mental powers—the extent of our practice—and the degree with which we are familiar with the writings of those learned men who are celebrated as the masters of the art of reasoning. Dr. Campbell, in his Philosophy of Rhetoric, compares logic to the soul, and grammar to the body; the union of both being essential to an excellent discourse.

SECTION II.

THE SUBJECTS OF THE ART OF REASONING.

The human mind can think, can reason, can remember. How it performs these operations we do not know. It does perform them, that's certain. 'Tis equally certain that these operations are distinct from each other. The mind may think of things without reasoning about them; and it may remember things without reasoning about them.

As logic is the art of reasoning it has nothing to do with those truths that are self-evident, or which are known to be true without reasoning. The positive testimony of the senses supersedes the necessity for reasoning. If you have the tooth-ache or the gout, you want no logic to prove to you that you suffer pain. And as we know what passes without us, by the organs of hearing and seeing—and what passes in our bodies, by means of our sensations—so we know what passes in our minds, by means of consciousness. We know that we think—that we judge—that we remember. We know that we hope and we fear—we love and we hate. All these, and a variety of other operations and feelings, pass within our minds; and we want no logic to convince us of their existence. There are also many other truths that are self-evident. We know that two and two make four—that a part of anything is less than the whole—that a cause must precede the effect—and that a proposition cannot be both true and not true at the same time, and in the same respect. These are called *first* truths, or truths of intuition. They are wrought into our very nature, and we cannot disbelieve them, if we would. If we meet a man who denies them, we do not reason with him. We conclude either that he does not understand the meaning of the words, or that he has lost his reasoning faculties.—Here logic has nothing to do.

As logic is merely the art of reasoning, it follows that logic has nothing to do with those mental operations in which we do not reason. The mere giving or receiving of infor-

mation is not reasoning. If you say to a friend, "It is a cold day," there is no logic in that. But if you say, "I think we shall have rain in the course of the day," that is a logical conclusion; and, if asked to do so, you should be prepared to give reasons for your opinion. So the acquisition of knowledge by reading or hearing is not reasoning. You may possibly read history or biography, learn several languages, and become acquainted with botany, natural history, and several other sciences, without reasoning. All this requires nothing more than a good memory. And hence it is possible to become a very learned man and yet not be a logician. But if you begin to reason about anything you learn, you immediately become a logician. Take, for illustration, a case in history. You have read the life of Napoleon Bonaparte, and you remember all the events recorded, and also the opinions of the historian. You are no logician here. But if you stop to ask if any particular event be true—if you inquire whether in certain actions he evinced sagacity or courage—and consider what were the effects of his course on the state of Europe—as soon as you commence to discuss these or any similar questions, you become a logician.

As an example of Information without Reasoning, we quote the following extract on the origin of Banking:—

We have but little information as to what kind of banks existed in the earlier ages, or on what system they conducted their business. As most of the nations of antiquity subsisted chiefly on agriculture, they probably had little occasion for banks; for it is only in commercial countries that these institutions have attained to any high degree of prosperity. And as even the commercial nations of antiquity were unacquainted with joint-stock companies or commercial corporations, and had not discovered the use of paper-money or bills of exchange, the business of a banker, even among them, must have been somewhat different from that of a banker of the present day. The merchants of those early times employed as money, gold and silver bullion; and received it and paid it away by weight. It is probable that the merchants would require that the precious metals they received should be of a certain degree of fineness. We read of Abraham weighing unto Ephron 400 shekels of silver, *current money with the merchant*—a phrase which implies that the money current with the merchant was different from that in ordinary use.

After bullion was superseded by coin, and each nation had a coin of its own, the merchants would necessarily in the course of their business receive coins belonging to different nations, and hence would be applied to by strangers who wished to exchange their own money for the money of the country in which they sojourned. This would take place more particularly in those oriental countries whose inhabitants were accustomed in certain seasons to meet together for the celebration of public festivals. We read in the New Testament of money-changers who had tables in the Temple of Jerusalem. It is probable they attended for the purpose of giving Jewish money in exchange for those various coins which persons coming from the neighbouring countries might have brought with them. Whether the business of money-changing was carried on as a separate employment, or united with the general business of a merchant, we are not informed; but it is stated that the exchangers allowed interest for money lodged in their hands—"Thou wicked and slothful servant, thou oughtest to have put my money to the exchangers, and then at my coming I should have received mine own with usury." From the circumstance of their allowing interest on money, we may infer that they also lent money on interest; otherwise they would have had no use for the money they borrowed. This scanty information forms the whole of our knowledge respecting the mode of banking practised by the ancient Babylonian, Egyptian, and Jewish nations.

As logic has nothing to do with receiving or retaining information, so also it has nothing to do with imparting information, or with the giving of advice or commands. There is no logical process in the following words—"Be not wise in your own conceit—Recompense to no man evil for evil—Provide things honest in the sight of all men—If it be possible, as much as in you lieth, live peacefully with all men—Be not overcome of evil, but overcome evil with good." But sometimes the terms, though simply the language of advice or command, will imply a logical process: thus—"Go to the ant, thou sluggard; consider her ways, and be wise;" which implies that there is some connexion between going to the ant and becoming wise; and thus it denotes a logical process in the mind of the speaker. So also, if a motive is added, this brings the command or advice within the province of logic: thus—"Honour thy father and thy mother, *that* thy days may be long in the land"—"Honour the Lord with thy substance, and with the first-fruits of all thine increase; *so*

shall thy barns be filled with plenty, and thy presses shall burst out with new wine."

The following are Examples of Advice. The last sentence in each of the paragraphs contains a reason:—

Be always open and straightforward with your banker. Do not represent yourself to be a richer man than you are; do not discount with your banker any bills that are not likely to be PUNCTUALLY paid when due; and, should any be unpaid and returned to you, pay them yourself IMMEDIATELY. Do not attempt to OVERDRAW your account; that is, do not draw cheques upon your banker for more money than you have in his hands, without first asking his consent; and if you make him any promises, be sure that they be strictly performed. If you fail ONCE, the banker will hesitate before he trusts you again.

Should you be dissatisfied with anything connected with your account, make your complaint to the BANKER himself, and not to the clerks. Let all your communications be made in PERSON, rather than by LETTER. But do not stay long at one interview. Make no observations about the weather or the news of the day. Proceed at once to the business you are come about, and when it is settled retire. This will save your banker's time, and give him a favourable impression of your character as a man of business.

Logic has no province of its own. If you reason at all, you must reason about something, and that something may belong to any one of the arts or sciences. There is no object in nature, nor any fact in history, but what may become a subject of argument. Thus while logic as an art has no domain of its own, it has a province in every other domain—or rather it is called in whenever necessary to settle disputes and exercise supremacy in all the other departments of human knowledge. A judge on Circuit may have no property in the county in which he administers justice, nor any authority over its population. But should any estates in the county become the subject of litigation, or any person become a party in a civil or criminal proceeding, then are they immediately brought under his jurisdiction. So whenever any difference in opinion arises either in the arts and sciences or in ordinary life, it is the province of logic to adjust the dispute. Thus every object in nature, every feeling of the mind, and every event in history, may become connected with a logical process.

SECTION III.

THE UTILITY OF THE ART OF REASONING.

All men and women reason from their infancy. 'Tis as natural for them to do so as it is for dogs to bark or birds to sing. And when they reason about things they understand, they generally reason well. But sometimes they reason ill; and 'tis the business of the art of reasoning to show them when they reason ill, and to teach them how to reason well. Such an art cannot be otherwise than useful. It must be useful to know how to do *well* anything we have to do every day and several times a-day. And when we recollect that much of our health, our success in business, our moral and religious character, our present and future happiness, our reputation in the world, and our usefulness to others will depend upon the soundness of our reasonings, the art will appear to us to be of very high importance. We shall point out a few respects in which it is useful:—

1. The Art of Reasoning is useful by enabling us to form our own judgments.

You talk, of course, about a great many things. You talk about yourself; about your friends, and relations, and acquaintances; about your trade and profession; about the accidents and offences you read of in the newspaper; about public measures and public men; about France, and Russia, and America, and other nations with whom we may be or expect to be at war; about right and wrong; justice and injustice; wealth and poverty; slavery and liberty; about private Banks and Joint-Stock Banks; and about literary, scientific, charitable, and religious institutions. Now, upon all these subjects, and a variety of others, you will probably give opinions, and most likely very correct opinions, provided you talk only of what you understand. But to guard against giving incorrect or unguarded opinions, you may as well take a lesson or two upon the right way of reasoning.

You will say that you can do all this without the aid of

logic. So you can. But logic will teach you how to do it better. Logic will teach you that you must form your opinions by reason alone, without any bias from your passions or feelings. Logic will teach you that you must be able to give a reason for all the opinions you entertain. Logic will teach you that you must look at both sides of the question, and examine the arguments that can be advanced against any opinion as well as those that may be advanced in its favour; and that you must weigh these arguments, and see which side preponderates. Logic will teach you that after having done this, you must be ready to admit any new facts or arguments that may appear on either side of the question. In these various ways a knowledge of the art of reasoning will be useful to yourself.

By thus examining the reasons for your opinions you will soon learn to distinguish between good reasons and bad ones. You will get into the practice of using good reasons and discarding bad ones. You will thus acquire the habit of reasoning well, and when assailed with bad reasons you will know how to refute them.

2. The Art of Reasoning is useful in teaching us how to give advice and instruction to others.

You will have occasion to give instruction or advice to others. You will often have occasion to do this in your family. But, besides, you may be a director in a public company, or on the committee of a charitable institution, or may be consulted by your friends in cases of emergency. In all these positions it is desirable you should be able to give good advice, and to enforce it by reasonable considerations. You know that the counsel of Ahithophel was so highly esteemed that it was as if a man had inquired at the oracle of God (2 Sam. xvi. 23); and doubtless you have known men who, though not gifted with eloquence or talent, have yet been so remarkable for soundness of judgement, that they have been treated with universal respect. If you accustom yourself to reason well when forming your own opinions, you will insensibly acquire the habit of reasoning well when stating those opinions to other people.

3. The Art of Reasoning is useful by enabling us to defend our own principles against the attacks of opponents, and to give them currency in the world.

You may have to defend your opinions against the attacks of those who hold contrary opinions. You must not hesitate to do this when the cause of truth or of justice requires it. When your own character or that of your friends, or your political or religious principles, are assailed, you are bound to make resistance, and it will be useful to be able to do it well. The political and religious differences that exist among mankind are by no means to be deplored as unmingled evils. They serve to awaken the nobler feelings of the soul, and to maintain attention to principles that might otherwise be forgotten. They stimulate the intellectual powers, and impart an energy to all the faculties and to all the operations of the mind. To engage in controversy does not imply that you are to vituperate the person, misrepresent the opinions, or calumniate the character of your opponents. You will be less liable to fall into these practices if you understand the art of reasoning. You will then have no occasion for these ignoble weapons. You will be conscious that the force of truth and the power of logic will have much greater effect in defeating your antagonists.

4. You may have occasion to employ the Art of Reasoning in choosing a banker :—

Now, then, as you have made up your mind to keep a banker, the next thing is to determine at what bank you will open your account. On this point I must leave you to make your own choice. All the PUBLIC BANKS issue prospectuses, containing a list of their directors, the amount of their paid-up capital, the names of the bankers who superintend their respective establishments, and their rules for transacting business. You can get a prospectus from each bank, compare them together, and please your own fancy. But if you have no other grounds for preference, I advise you to open your account with the BANK or BRANCH BANK that is NEAREST TO YOUR OWN PLACE OF BUSINESS. You will often have to go or send to the bank, and if it be a great way off, much time will be lost, and you will at times be induced to forego some of the advantages of keeping a banker rather than send to so great a distance. On this account, let your banker be your neighbour. Recollect, time is money.

5. The Art of Reasoning will teach you how to render your Bank account useful in regulating your personal expenditure :—

There are a good many of the middle class of people who are not in trade, and I must now address them. Perhaps you are a clergyman, or a medical man, or you are in a public office, or are living on your rents or dividends. At all events, whatever you may be, I conclude you are not living beyond your means. If you are, I have not a word to say to you about keeping a banker; you will soon, most likely, be within the keeping of a gaoler.

Several of the reasons I have given to the trader will also apply to you; but there is one that applies with much greater force—the tendency to insure accurate accounts. As you are not a man of business, I shall not advise you to keep an account of your receipts and your expenditure. I know you will do no such thing. Should you ever commence to do so, you will get tired before the end of the year, and throw the book aside. Now, if you keep a banker, he will keep your accounts for you; his Pass-book will show you the state of your accounts. All the money you receive you must send to the bank, and all your payments must be made by cheques upon the bank. If you want pocket-money, draw a cheque for 5*l.* or 10*l.*, payable to Cash, but by no means disburse any money but through your banker. Your book will be balanced every half-year. You will then see the total amount of your receipts during the half-year, and your various payments to the butcher, the baker, the tailor, &c. &c. The names to which the cheques are made payable will show you for what purpose they were given, and you should write these names in a plain hand, that the clerks may copy them correctly in the Pass-book. Now, if you look through your book once every half-year in this way, you will probably see occasion to introduce some useful reforms into your domestic expenditure. But if you are too lazy to do this, hand the book to your wife, and she will do it for you.

6. The Art of Reasoning will be useful in enabling you to judge of any laws or events that may affect the interests of Bankers :—

We are no theorists—we are practical men. When we desire to judge of the soundness of any principle of banking, we say, 'Bring it to the test of experience, and let us see how it works.' If we find that it produces good practical effects we conclude that the principle is sound. If we find, on the other hand, that the effects are practically bad, no reasoning upon earth can convince us that these bad practical effects can result from sound principles. We maintain that principles are

known by their effects. 'The tree is known by its fruits; men do not gather grapes from thorns, or figs from thistles.' This is the language of Scripture and of common sense; and it embraces, if we mistake not, the true principles of the Baconian philosophy.

Of all the suggestions that were made by the parliamentary committee* there was scarcely one which exhibited a greater disregard for the dictates of experience than the following—'The law does not limit the number of branches, or the distance of such branches from the central bank.' It is here intimated that the law ought to limit the number of branches, and the distance of each branch from the head-office. By what process of reasoning the committee arrived at this conclusion we are left to conjecture. But in whatever path they travelled they were certainly not guided by experience. Had they gone to Scotland they would have found that there 'the law does not limit the number of branches, nor the distance of each branch from the central bank;' and hence some banks have from thirty to forty branches. Had they gone to Ireland they would have found the law the same, and branches spread all over the country, while, in some cases, the 'central banks' might be traced to London. Had they gone to America, they would have discovered but a short time ago a central bank in Philadelphia, having a branch in every state in the Union. But they need not have gone to other countries. Had they examined the charters of the Colonial Bank, and the Bank of Australasia, they would have found that while the central banks are in London, their branches are in remote parts of the globe. Or had the committee looked even at their favourite bank, the Bank of England, they would have seen that it has a dozen branches, some of which are 200 miles distant from the central bank. Now we ask, were not the committee bound to show the evils that had resulted from the branch system in the instances we have adduced, before they passed upon it a sweeping sentence of condemnation?

We are not now going to point out the excellence and advantages of the branch system of banking, as we shall have numerous opportunities of doing so when the subject shall have come under the consideration of Parliament. But we say distinctly that should the government propose any limitation of branches, either as to number or distance, such a proposition ought to be most strenuously opposed. All the Joint-Stock Banks throughout the United Kingdom, 'from Dan to Beersheba,' should unite in a compact body 'as one man,' to resist such a tyrannical encroachment on the freedom of banking.

* The Committee of 1836.

SECTION IV.

THE DISPOSITIONS NECESSARY TO THE ART OF REASONING.

To reason well we must avoid prejudices or pre-judgments—judgments formed *before* we begin to reason. Dr. Watts has a chapter on the doctrine of prejudices or springs of false judgments. He divides them into four classes—prejudices arising from things, from words, from ourselves, and from others.

The three main sources of erroneous opinions in regard to Banking, are party political feeling, personal associations, and the spirit of theory. We will take from the History of Banking a few instances wherein we think one or other of these influences has biassed the judgment even upon questions of considerable importance.

1. We begin with party feeling.

The Bank of England was established in the year 1694, by King William III. The party who were opposed to the government, opposed the establishment of the Bank:—

The opposition party affirmed that it would become a monopoly, and engross the whole money of the kingdom; that as it must infallibly be subservient to government views, it might be employed for the worst purposes of arbitrary power; that instead of assisting, it would weaken commerce, by tempting people to withdraw their money from trade and employ it in stock-jobbing; that it would produce a swarm of brokers and jobbers to prey upon their fellow-creatures, encourage fraud and gambling, and thus corrupt the morals of the nation. Notwithstanding these objections, the act passed both houses of parliament, and received the royal assent. The following observations upon the establishment of the Bank of England, are taken from Bishop Burnet's 'History of his Own Times:'—

"Some thought a bank would grow to be a monopoly, all the money in England would come into their hands, and they would in a few years become masters of the wealth and stock of the nation; but those that were for it, argued that the credit it would have must increase trade, and the circulation of money, at least in bank notes. It was visible that all the enemies of the government set themselves against it with such a vehemence of zeal, that this alone convinced all people that they saw

the strength that our affairs would receive from it. I had heard the Dutch often reckon up the great advantages they had from their banks; and they concluded that as long as England continued jealous of the government, a bank could never be settled among us, nor gain credit enough to support itself: and upon that, they judged that the superiority in trade must still lie on their side.

"The advantages the king and all concerned in tallies had from the bank were soon so sensibly felt, that all people saw into the secret reasons that made the enemies of the constitution set themselves with so much earnestness against it."

The Bank of Scotland was established in the year 1695. It ceased to have any exclusive privileges in the year 1715. As the directors were supposed to be friendly to the Pretender, the government in the year 1727 gave a charter to an association, called "the Equivalent Society," constituting it "the Royal Bank." We take from a pamphlet published in that year the following extracts:—

"It has been very peremptorily said by some *that it would be of advantage to the nation to have a second bank established, that the subjects may not be limited to the particular narrow rules of one bank.* To which it is answered, that it is impracticable to support and carry on two banking companies in one country,—no nation ever did attempt it. England, where banking is as well known as in any part of the world, did never try it. On the contrary, the government, and those of the Bank of England, are so fully persuaded of the infallibly bad consequences of authorizing any other company to bank, that no charter to any new company does pass until it is first examined by the directors of the bank, and found to contain no powers in it that may prove hurtful or inconvenient to the Bank of England. If Scotland can bear two banks, and that it would be for the nation's advantage to have two, it naturally follows that England could bear ten. But it is as well known that if two banks were authorized in England, there would be a constant jostling and interfering betwixt them, until one, or probably both, came to ruin.

"Nobody that knows the nature of banking, does believe that two banks can be carried on in the same country. For it is impossible to manage and keep them up without interfering and rubbing upon one another, unless rules and regulations could be made to prevent it. And it is impossible to digest regulations for executing such a design but what must make the interest of the two companies reciprocal, and the product of their trade mutually to be communicated, and so two different offices, under distinct management and direction, would be a needless charge and trouble.

"And here, by the way, I desire it may be particularly noted how little *Scotland* is minded by the *Scots* proprietors in the equivalent stock when they are rivalling the *bank*, and endeavouring to carry the trade of banking in favour of that society. For if they shall succeed, the greater their profits are, so far is the nation prejudged thereby, seeing 210 shares thereof must be exported for 40 only that belong to Scots proprietors. Or Scotsmen must purchase that stock at an extravagant rate, at the discretion of the foreign proprietors, and what must be the fatal consequences need not be explained. This one consideration is sufficient to convince every honest-hearted Scotsman that the wronging the present bank, and favouring the Equivalent Society in any business for making profit by mere credit in Scotland is downright destruction to the nation."

The establishment of the first bank of the United States of America was also strongly opposed by a political party :—

After the conclusion of the war it was provided by the constitution of the United States, that no state should coin money, emit bills of credit, make anything but gold and silver coin a tender in payment of debts, or pass any law impairing the obligation of contracts; and the power to coin money, and to regulate the value thereof, was vested exclusively in Congress.

This article of the constitution has given rise to considerable discussion, as it involves the question whether Congress has the power to constitute a national bank.

The constitution of the United States was adopted in 1789, and shortly after the government was organized. On the 14th of December, 1790, the then secretary of the treasury (General Hamilton) reported to Congress the plan of a bank. In February, 1791,the bill passed, and was presented to General Washington for his approval. In the progress of the bill it was opposed by Mr. Madison (subsequently President), Mr. Giles, and others, on the ground that the States had not delegated the power to create such an institution, and therefore that it was unconstitutional. It was supported by Mr. Ames, Mr. Boudinot, &c., who were members of what was termed, in those days, the high-toned federal party. On the 25th of February, 1791, the president approved of the bill and it became a law.

The bank was not merely, or principally, a commercial establishment, but was essentially and mainly of a financial and political character; and it was on this ground that its constitutionality was defended; the right of Congress to grant such a charter being maintained chiefly upon the strength of that clause of the constitution, which gives to it the power necessary for carrying into execution the powers enumerated, and expressly invested in that body. At the time of its establishment, it was opposed on the ground of its presumed unconstitutionality, by

the political party, then in the minority, of which Mr. Jefferson was regarded as the leader; and before the termination of the charter, this party having come into power, the renewal of the charter was refused, and the institution was dissolved.

The second bank of the United States commenced business in Philadelphia in January 1817. The establishment of this bank gave rise to similar discussions, and on the expiration of its charter in 1836, its renewal was refused by the then President, General Jackson.

2. We think that a bias arising from personal association was manifested in the following cases.

In the year 1826 Branches of the Bank of England were established in the provinces. The country bankers were strongly opposed to these branches, and held public meetings, in which resolutions were passed in condemnation of them. In the year 1828 the bankers presented a memorial to the Government on the subject, which concluded thus :—

"Your memorialists therefore deeply regret that your lordships do not feel justified in adopting measures for the withdrawal of the branch banks, and they hope that your lordships will be pleased, as far as lies in your lordships' power, to prevent any interference with the business of your memorialists; and that your lordships will be pleased to institute an inquiry into the system of country banking, and take into your lordships' consideration the claims of the country bankers to be regarded as parties in the intended application for the renewal of the bank charter; and that no special privilege or monopoly be granted or continued to the governor and company of the Bank of England, but that they may be placed on a perfect equality with country bankers in the competition, which, by means of their branches, they are now carrying on with your memorialists."

In the same year Joint-Stock Banks were permitted to be established in England, at a greater distance than sixty-five miles from London. A Bank Director, in a pamphlet published in 1836, referred to this measure in the following terms:—

"Immediately subsequent to the panic of 1825, which affected almost every banking establishment in London as well as the country, the Government of that day was unfortunately induced to call upon the Bank of England to relinquish, beyond sixty-five miles from London, its exclusive privilege as to the number of partners authorized by law to be associated for the formation of banks, in order to enable ministers to frame regulations authorizing the establishment of Joint-Stock Banks

throughout all parts of the country beyond the limit above specified, thereby virtually declaring that the existing private banks were unworthy of credit. The term 'unfortunate' is used; for perhaps there never was a measure more uncalled for by the wants of the community. The existing system was intimately connected with the prosperity of the country, and was good in all its parts, excepting the power of issuing paper-money *ad libitum*. The change in question laid the foundation of a new system to be brought into the field by competition in the issue of paper-money, the most prejudicial means that could be devised."

He afterwards states—

"The consideration of the joint-stock system had been, for some time prior to the year 1825, forced upon public attention by the many failures which had taken place subsequently to 1810 in private banking establishments, amounting to more than one hundred and fifty: and as about eighty private banks suspended their payments in 1825, the government thought themselves then called upon without further delay to endeavour to change the system altogether—a sound system of banking being an object of the highest importance to the whole community."

In the year 1832 several London bankers gave evidence before the Bank Charter Committee, respecting the establishment of Joint-Stock Banks in London. The following are extracts from their evidence :—

"Do you think that any Joint-Stock Company can conduct its business with the same degree of caution that a private banker does?" "I think that Joint-Stock Banks are deficient in everything requisite for the conduct of the banking business, except extended responsibility; the banking business requires peculiarly persons attentive to all its details, constantly, daily and hourly, watchful of every transaction, much more than mercantile or trading business. It also requires immediate prompt decisions upon circumstances when they arise, in many cases a decision that does not admit of delay for consultation; it also requires a discretion to be exercised with reference to the special circumstances of each case, Joint-Stock Banks being of course obliged to act through agents and not by a principal, and, therefore, under the restraint of general rules, cannot be guided by so nice a reference to degrees of difference in the character or responsibility of parties, nor can they undertake to regulate the assistance to be granted to concerns under temporary embarrassment, by so accurate a reference to the circumstances, favourable or unfavourable, of each case."

"You stated that the establishment of Joint-Stock Banks in London, governed by bodies of directors, would not be capable of giving so much useful and discriminating assistance to traders, as private bankers

can give; would you apply that observation to the country as well as to London?—No, I think there is a great distinction between the country and London business: in a country town, with a limited population, the directors are as well able to judge of their customers as a private banker can be, but in London I think it is almost impossible for the directors, who would be coming in and going out by rotation, to make themselves acquainted with the character and circumstances of individuals, in the same way as private bankers could and do. I should draw this distinction generally, that you cannot get a director to do that for his proprietors, which a private banker would do for himself; but I think that in a country town individuals are so well known to each other, that there is no necessity for that acquired knowledge, which there is here."

3. The spirit of theory has been abundantly manifested in many books, pamphlets and speeches, that have appeared before the public, from the appointment of the Bullion Committee in the year 1810, to the Act for regulating the currency passed in the year 1844.

The following is the theory of the Act of 1844:—

"What, in your opinion, is the sound principle according to which the circulation should be regulated?—A metallic currency, I conceive, by virtue of its own intrinsic value, will regulate itself; but a paper currency, having no intrinsic value, requires to be subjected to some artificial regulation respecting its amount. The use of paper currency is resorted to on account of its greater economy and convenience; but it is important that that paper currency should be made to conform to what a metallic currency would be, and especially that it should be kept of the same value with the metallic currency, by being kept at all times of the same amount. Now, the influx and efflux of gold is the only sure test of what would have been the variations of a metallic currency, and, therefore, I conceive that that constitutes the only proper rule by which to regulate the fluctuations of a paper currency."

The following example is taken from the evidence of a witness examined before the Committee on Commercial Distress in the year 1848, and it represents generally the opinions of the "Currency Reform Association" at Birmingham:—

"In speaking of national paper, you mean paper issued by some corporation like the Bank of England, or some institution corresponding in its functions with the Bank of England? Exactly.—Will you state whether I correctly understood you as saying that national paper

should be issued *ad libitum* till the period when prices were remunerative, and every industrious able-bodied man found full employment? Certainly.—When that object had been achieved you would fix your standard at that point? Yes.—Till you had achieved that object, till prices were remunerative, and all able-bodied industrious men had employment, we should have an unlimited issue of paper? Yes, the only reason that I say that, is, that under the present system we have so far departed from what is right in the basis, we have had such extraordinary fluctuations, that we cannot now tell where we are. It is necessary, therefore, to take observations; but the great principle is, that the labourer should have his wages, the manufacturer his profit, and that the creditor should have his due; that the labourer should have his value for his labour, as well as the wealthy man, the creditor, the value for his money.—Do I correctly state your views, when I state, that you would propose that national paper should be issued without limit, or without any reference to any metallic standard of value, until that period should have arrived when the prices generally should give to every able-bodied industrious man full employment? You correctly understand me."

With these examples before us we ought, upon every Banking question, to be careful to guard our reasonings against any undue influence arising from party feeling, personal association, or the spirit of theory, and to endeavour at all times to cherish in our minds an inflexible love of truth, and a spirit of mental independence.

SECTION V.

THE KNOWLEDGE NECESSARY TO THE ART OF REASONING.

I NEED hardly observe that to reason well, you must have common sense. This can be obtained only from Nature. While *learning* will increase your information, extend your range of inquiry, and unlock new sources of the most refined pleasure, it will not give you common sense. Nor does it appear that this common sense is ever much improved by learning. As is the child in this respect, so is the man. It is possible to have a strong memory and a weak understanding. Fools have become learned and still have remained fools.

Men of vast erudition have shown themselves weak in judgment, even in regard to those branches of knowledge in which they have obtained distinction—and miserably deficient in the ordinary affairs of life. It is only by common sense that we can reason, and can judge of the soundness of our reasons. This power or faculty of the mind is not sparingly bestowed. It is given to almost every man, and to an extent that is found adequate for all the functions he is called upon to discharge. Common sense has been good sense in every age of the world.

Presuming, then, gentle reader, that you are endowed with common sense, I will proceed to show you what further is required to enable you to reason well.

1. To reason well, you must understand the subjects that you reason about.

Go to the market-place, and listen to the conversation between the buyers and the sellers. How readily the sellers advance arguments to show that their goods are very cheap, and how promptly the buyers answer these arguments, and strongly argue on the other side. Now how is it that these uneducated people are enabled to argue so forcibly and so fluently? It is that they understand what they are talking about. And this must be the first step in all our reasonings.

We begin, therefore, by stating clearly what is the subject of discussion: and this is called giving a definition of it:—

"In order to form a definition of anything, we must put forth these three acts of the mind:—

"First, Compare the thing to be defined with other things that are most like itself, and see wherein its essence or nature agrees with them; and this is called the *general nature or genus* in a definition: so if you would define what wine is, first compare it with other things like itself, as cider, perry, &c., and you will find it agrees essentially with them in this, that it is a sort of juice.

"Secondly, Consider the most remarkable and primary attribute, property, or idea wherein this thing differs from those other things that are most like it; and that is *its essential or specific difference*: so wine differs from cider and perry, and all other juices, in that it is pressed from a grape. This may be called its special nature, which distinguishes it from other juices.

"Thirdly, *Join* the general and special nature together, or (which is all one) *the genus and the difference,* and these make up a definition. So the juice of a grape, or juice pressed from grapes, is the definition of wine."—*Watts's Logic.*

But everything cannot be defined in this formal manner, and we may adopt any mode of expression we please, provided it will convey to others a correct description of what we mean.

The following are definitions of a Banker and of Banking:—

A banker is a man who has an open shop with proper counters, clerks, and books, for receiving other people's money in order to keep it safe, and return it upon demand.

A banker is a dealer in capital, or more properly a dealer in money. He is an intermediate party between the borrower and the lender. He borrows of one party, and lends to another; and the difference between the terms at which he borrows and those at which he lends, forms the source of his profit. By this means he draws into active operation those small sums of money which were previously unproductive in the hands of private individuals; and at the same time furnishes accommodation to those who have need of additional capital to carry on their commercial transactions.

Banking is both an art and a science. As an art it is a branch of trade intimately connected with every man's business; as a science, it forms an important portion of political economy. The knowledge of banking as an art, is acquired like that of other arts, by serving an apprenticeship, or engaging practically in its operations. The knowledge of banking as a science, may be acquired like that of other sciences, by reading, observation, and reflection. These two branches of knowledge do not always accompany each other. Some, who are practically engaged in banking, do not study its principles; while those who have written upon its principles, have, for the most part, been political economists and statesmen, who were unacquainted with its practical details.

2. To reason well, you must clearly understand what is asserted about the subject.

"A proposition is a sentence wherein two or more ideas or terms are joined or disjoined by one affirmation or negation; as, 'Plato was a philosopher: Every angle is formed by two lines meeting: No man living on earth can be completely happy.' When there are ever so many ideas or terms in the sentence, yet if they are joined or disjoined merely by one single affirmation or negation, they are properly called

but one proposition, though they may be resolved into several propositions which are implied therein, as will appear hereafter.

"There are three things which go to the nature and constitution of a proposition; namely, the subject, the predicate, and the copula.

"The *subject* of a proposition is that concerning which anything is affirmed or denied: So 'Plato, angle, man living on earth,' are the subjects of the foregoing propositions.

"The *predicate* is that which is affirmed or denied of the subject: so 'philosopher' is the predicate of the first proposition; 'formed by two lines meeting,' is the predicate of the second; 'capable of being completely happy,' the proper predicate of the third.

"The *copula* is the form of a proposition; it represents the act of the mind affirming or denying, and it is expressed by the words, am, art, is, are, &c.; or, am not, art not, is not, are not, &c.

"The subject and predicate of a proposition are not always to be known and distinguished by the placing of the words in the sentence, but by reflecting duly on the sense of the words, and on the mind or design of the speaker or writer: as if I say, 'In Africa there are many lions,' I mean many lions are existent in Africa: 'many lions' is the subject, and 'existent in Africa' is the predicate. 'It is proper for a philosopher to understand geometry:' here the word 'proper' is the predicate, and all the rest is the subject, except 'is,' the copula."—*Watts's Logic.*

The following quotation contains some important propositions in reference to Banking:—

The business of banking consists chiefly in receiving deposits of money, upon which interest may or may not be allowed;—in making advances of money, principally in the way of discounting bills;—and in effecting the transmission of money from one place to another. Private banks in metropolitan cities are usually the agents of the banks in the provinces, and charge a commission on their transactions. In making payments many country banks issue their own notes.

The disposable means of a bank consist of—First, the capital paid down by the partners, or shareholders. Secondly, the amount of money lodged by their customers. Thirdly, the amount of notes they are able to keep out in circulation. Fourthly, the amount of money in the course of transmission—that is, money they have received, and are to repay, in some distant place, at a future time.

These disposable means are employed—First, in discounting bills. Secondly, in advance of money in the form of cash credits, loans, or overdrawn accounts. Thirdly, in the purchase of government or other securities. Fourthly, a part is kept in the banker's till, to meet the current demands. Of these four ways of employing the capital of a bank, three are productive, and one is unproductive. The discounting

of bills yields interest—the loans, and the cash credits, and the overdrawn accounts yield interest—the government securities yield interest—the money in the till yields no interest.

The expenses of a bank may be classified thus: rent, taxes, and repairs of the house in which the business is carried on; salaries of the officers; stationer's bill for books, paper, notes, stamps, &c.; incidental expenses, as postages, coals, &c.

The profits of a bank are that portion of its total receipts—including discount, interest, dividends, and commission — which exceeds the amount of the expenses.

3. To reason well, you must know how to express yourself in clear and intelligible language.

"Words and terms are either *univocal* or *equivocal.* Univocal words are such as signify but one idea, or at least but one sort of thing; equivocal words are such as signify two or more different ideas, or different sorts of objects. The words book, bible, fish, house, elephant, may be called univocal words; for I know not that they signify anything else but those ideas to which they are generally affixed; but head is an equivocal word, for it signifies the head of a nail, or of a pin, as well as of an animal: nail is an equivocal word, it is used for the nail of the hand, or foot, and for an iron nail to fasten anything. Post is equivocal, it is a piece of timber, or a swift messenger. A church is a religious assembly, or the large fair building where they meet; and sometimes the same word means a synod of bishops, or of presbyters; and in some places it is the pope and a general council."

"When we communicate our notions to others, merely with a design to inform and improve their knowledge, let us, in the beginning of our discourse, take care to adjust the definition of names, wheresoever there is need of it; that is, to determine plainly *what we mean by the chief words* which are the subject of our discourse; and be sure always to keep the same ideas whensoever we use the same words, unless we give due notice of the change. This will have a very large and happy influence, in securing not only others, but ourselves too, from confusion and mistake; for even writers and speakers themselves, for want of due watchfulness, are ready to affix different ideas to their own words, in different parts of their discourses, and hereby bring perplexity into their own reasonings, and confound their hearers."—*Watts's Logic.*

The following examples of ambiguous words are taken from the Author's writings on Banking:—

Bank.—The building or shop in which this business is carried on, is usually called in London a "Banking-house," but in Scotland, and the country parts of England, it is called a "Bank." The word "bank"

is also employed to denote the partnership or company who carry on the business of banking. Thus we say, the Bank of Scotland, the London and Westminster Bank, the Bank of Messrs. Coutts & Co.

The word Bank, being a noun of multitude, may have verbs and pronouns agreeing with it in either the singular or the plural number, yet not without regard to the import of the term as conveying unity or plurality of idea. In the use of this term the following rules are usually observed:—

1. When any operation or feeling of the mind is ascribed to a bank, the verbs and pronouns are placed in the plural—as "The bank *were anxious* to meet the wishes of the public." "The bank *have concurred* in the measure proposed."

2. When a reference is made to a bank merely as an institution, the term is considered to belong to the singular—as, "The Bank of Scotland continued the only bank from the date of *its* establishment, in 1695, to the year 1727."

3. When we notice the rules or habitual acts of a bank, the word belongs to the singular—as, "The Provincial Bank *allows* interest at the rate of two per cent." "The London and Westminster *grants* interest upon deposits—*it does* not allow *its* officers to receive Christmas presents from *its* customers."

4. When the word bank is introduced in either the singular or the plural number, the same number should be preserved throughout the sentence. Hence, the following sentence of Smollett's is inaccurate: "By the same acts the bank *was* required to advance a sum not exceeding 2,500,000*l.* towards discharging the national debt, if wanted, on condition that *they* should have 5*l.* per cent. for as much as *they* might advance, redeemed by Parliament."

5. When the word bank is used in the singular number, it is considered as a substantive of the neuter gender, and hence is associated with the relative pronoun, *which;* but when used in the plural number, it implies the idea of persons, and has accordingly the personal relative, *who;* as, "The bank with *which* he kept his account *has* stopped payment;" or, "The bank with *whom* he kept his account *have* stopped payment."

Circulation.—The word "circulation" means of course the amount of notes in the hands of the public. Since the passing of the Act of 1844 the word has been sometimes used in a more extended sense, so as to include also the notes in the banking department of the Bank of England. By the Act of 1845, it is enacted that this word shall have the following meaning in Scotland and Ireland:—"And be it enacted, That all bank notes shall be deemed to be in circulation from the time the same shall have been issued from any banker, or any servant or agent of such banker, until the same shall have been actually returned to such banker, or some servant or agent of such banker."

Currency.—*Ought Bank Deposits to be regarded as Currency?*—We use the word currency as synonymous with the word money, and including only coin and notes payable on demand. The ambiguity of the word currency is perhaps the main cause of the difference of opinions that have been expressed on this question. If the word currency include only bank notes and coin, then deposits are not currency; but if the word be extended so as to include deposits, then the word currency becomes a generic term, and includes various species of currency, as a coin-currency, a note-currency, and a deposit-currency. But this alteration in the meaning of the word would not make any alteration in the question, whether the deposits performed the same functions as bank notes.

Convertibility.—Those witnesses who are friendly to the Act contend that it has secured the convertibility of the Bank of England note,—that this convertibility was endangered in 1825, in 1837, and in 1839, and would have been endangered in 1847, but for this Act. By the phrase "securing the convertibility of the note," it is not meant that the issue department of the Bank of England held a sufficient amount of gold and silver to pay off all the notes it had issued. It is obvious that the gold and silver in hand must always be fourteen millions less than this amount, inasmuch as fourteen millions of notes are issued against securities. By "securing the convertibility of the note," is meant, that the issue department of the Bank of England were in a condition to pay off any amount of notes of which payment was likely to be demanded *for the purpose of exporting the gold*—the issue department was always in a condition to meet any *foreign* demand for gold. This is called, "securing the convertibility of the note."

Account. — This word may denote a current-account, a deposit-account, or a discount-account, or one that combines all the three.

PART II.

THE PRINCIPLES OF REASONING,

WITH ILLUSTRATIONS FROM THE AUTHOR'S WRITINGS ON BANKING.

We have said that reasoning is that operation of the mind, whereby we infer one proposition from another proposition. It is obvious that there must be some connexion or relation between these two propositions. There must be a relation between the proposition containing the proof and the proposition which is to be proved. *These relations are the foundation of all our reasonings. They are the principles on which we reason.* There must be a relation between any doctrine, and the reasons we assign for believing that doctrine. There must be a relation between any act, and the reason we assign for performing that act. If we say,

Fire will burn,
Water will drown;

here are two independent propositions. They have no connexion with each other. We can infer nothing from them. If we say, Fire will burn, and therefore water will drown, we see at once that the reasoning is absurd. Both the facts are true, but there is no foundation for the word "therefore." One fact is not the cause of the other. But if we say, Fire will burn, and therefore do not approach it too nearly; water will drown, and therefore do not bathe in deep water, unless you can swim; here the reasoning is obvious. Here is a relation or connexion between the proposition and the inference.

The power or faculty by which the mind perceives these relations is called common-sense. We cannot explain how it

is, but so it is. These relations are so numerous that we cannot attempt to describe them all. But we will specify a few, and discuss them in the following order:—

1. The relation of Subject and Attribute.
2. The relation of a Whole and its Parts.
3. The relation of Genus and Species.
4. The relation of Cause and Effect—Physical causes.
5. The relation of Cause and Effect—Moral causes.
6. The relation of Cause and Effect—Conditional causes.
7. The relation of Cause and Effect—Final causes.

SECTION I.

THE RELATION OF A SUBJECT AND ITS ATTRIBUTES.

By *attribute* we mean generally a quality or circumstance which is ascribed to some person or thing; and the *subject* is THAT to which the attribute is ascribed. To explain:—

You understand Grammar. You know that a substantive is the name of any person, place or thing; and that an adjective is a word added to a substantive, to denote its quality. Well; for substantive and adjective, say subject and attribute, and you will understand pretty clearly the topics of the present section. But the word attribute has a more extensive meaning than the word adjective. Every adjective denotes an attribute; but sometimes an attribute is expressed by a verb, a particle, or by several words put together. Often, too, an adjective united to a substantive will become a subject. When you say simply, "A good clerk," the word "clerk" denotes the subject, and "good" denotes the attribute. But when you say, "A good clerk is punctual in his attendance," the words "good" and "clerk" united denote the subject, and "punctual in his attendance," denotes the attribute of the good clerk. Whatever you talk about is a subject, and what you say about it is an attribute.

Some attributes are called specific. They belong to the

subject, and to no other subject. Those are attributes chiefly that distinguish one class or species from others. Thus man is called a rational animal. Rationality is the specific attribute that distinguishes him from other animals. The specific attribute is called by logicians, a specific difference.

Other attributes are called common. They are essential to the subject, but they belong also to other subjects. Thus, it is an attribute of gold to be yellow. If a metal is not yellow, it is not gold. But other things are yellow besides gold. The colour yellow is an attribute common to many subjects. These common attributes are called properties.

Other attributes are accidental. Whatever attribute can be removed from the subject without destroying the subject, is considered to be accidental. A hat may be white, or black, or made of beaver, silk, or straw; these are accidental attributes, for they all might be changed, and yet the subject remain a hat. These attributes are called accidents.

This relation of subject and attribute is a very extensive one. Almost everything we see, or hear, or know, is a subject, and has some kind of attributes. The usual way in which we define or describe anything, is by an enumeration of its attributes.

You will now observe how the relation of subject and attribute is applied in reasoning.

1. From the presence of the subject, we infer the presence of the attribute. Arguments of this kind are often expressed in a conditional form. Thus, we may say—If this be a magnet, it will *attract iron.* If this be an oyster, it is *good for food.* If he be a wise son, he will obey his father's instruction. If he be a good father, he will attend to the education of his children. If he be an honest man, he will pay his debts when he has the power, even though his creditors may have given him a legal release.

2. From the presence of the specific attribute, or of all the common attributes, we infer the presence of the subject. You will observe that this rule is the reverse of the former. By the former rule, from the presence of the subject we inferred the presence of the attribute. By this rule, from the presence of the attribute, we infer the presence of the subject.

In the former case we said—This is a good tree, therefore it will bear good fruit. In the present case we say—This tree bears good fruit, therefore it is a good tree. In the same manner, from the language or conduct of an individual, we should form an opinion of his character. So, if we should find a metal having all the common attributes of gold, we should know that it is gold. This principle is of great use in chemical experiments. Thus, we know that certain bodies have certain affinities for other bodies. To ascertain, therefore, whether this body be present in any compound substance, we add some body, for which the body, whose presence we wish to detect, has an affinity, or upon which it produces a known effect. There are certain chemical tests which are in constant use in such cases. Thus, the presence of the specific attribute shows the presence of the subject.

3. From the absence of the subject, we infer the absence of its specific attribute. Thus we may say—This man is not an educated man; therefore he is not qualified to be a teacher, This man has had no experience in war; therefore he cannot be qualified to be a general. He has an impediment in his speech; therefore he is not fit for an orator. Observe, although the absence of a subject shows the absence of its *specific* attribute, it does not prove the absence of any of its common attributes or properties. For these attributes belong also to other subjects.

4. From the absence of an essential attribute, we infer the absence of the subject. This rule is the reverse of the last. By the last rule we should say—This is *not* a good tree; therefore it will *not* bear good fruit. By the present rule we should say—This tree does *not bear good fruit;* therefore it is *not a good tree.* So it is an attribute of mind to think. Matter cannot think, and hence we infer that matter is not mind. Again, it is an attribute of matter to be divisible; but mind is not divisible; hence we infer that mind is not matter.

5. If any two attributes may be ascribed to the same subject, then we may infer that these two attributes are not inconsistent with each other. The late Sir Robert Peel had

a taste for the fine arts, he was also a good man of business; hence we infer that a taste for the fine arts is not incompatible with habits of business. Sir Thomas Fowell Buxton was a very benevolent man, and yet a great sportsman; and hence we infer that benevolent feelings are not incompatible with a fondness for field sports. The law of Moses required the Israelites to treat all strangers with justice and kindness, and yet the law of Moses allowed the Israelites to receive interest for money lent to strangers; we may therefore infer that it is not unjust or unkind to strangers to receive interest for the loan of money.

6. If the same attribute can be ascribed to one specified subject and not to another, then we may infer that these two subjects are different from each other. Thus, if the soul of man can reason, and the soul of a brute cannot reason, we infer that the soul of a man is different from the soul of a brute. If all fever produces thirst, and the patient does not suffer thirst, we infer that the patient has no fever. "A spirit hath not flesh and bones; you see that I have flesh and bones; you see then that I am not a spirit." You will observe that all these conclusions are negative. We *deny* that one thing is another, because the attribute can be ascribed to one of these things and not to the other.

7. If a subject have certain attributes, we infer that it is adapted for the use to which those attributes are applicable. The attributes of a joint-stock bank are, that it has more than six partners, that it has an amount of paid-up capital, and that on the death or retirement of any of its partners their portion of the capital is not withdrawn, but is transferred to other parties; and hence we infer that it is a safer system of banking for the public than if the partners were no more than six, and the death or retirement of any partner would cause the withdrawal of his portion of the capital. So from the attributes of the precious metals, divisibility, durability, and portability, it was inferred that they were adapted for the purposes of coin.

8. The presence of similar attributes in two or more subjects shows the probability of their corresponding in other

attributes. This is called "reasoning by analogy," which we shall discuss more at length hereafter.

9. The presence of any attribute shows the absence of a contrary attribute. This, of course, refers only to accidental attributes, for an essential attribute cannot be absent from its subject. Thus, if the weather be hot, it is not cold; if a banker be rich, he is not poor; if avaricious, he is not liberal; if he have the gout, he is not in good health.

10. In reasoning upon the relation subsisting between subject and attribute, it is always necessary *to distinguish between those attributes which are essential, and those which are accidental.* For, if we take accidental attributes, and argue upon them as though they were essential, our reasonings will be erroneous. Some men of great minds have had feeble bodies, but it does not follow that a feeble body tends to invigorate the mind. Some men of great intellectual powers have been addicted to great vices, but it does not follow that great vices are a mark of intellect. Some good bankers have been uncourteous in their manners, but it does not follow that want of courtesy is any proof of being a good banker.

11. Erroneous reasonings under this head sometimes arise from *our omission to take into account some one or more of the essential attributes.* A tradesman may have all the attributes of a good man of business, except that he is fond of speculation. A young woman may have all the attributes of a good wife, except sweetness of temper. A house may have all the attributes of an agreeable residence, except that the chimney smokes. A man may have all the attributes of an excellent friend, except that he cannot keep a secret. Now, in these cases, if you had, from a review of the other attributes, come to the conclusion, "That tradesman is worthy of high credit;" "That young woman would make an excellent wife;" "That house is a most agreeable residence;" "That man is a most judicious friend," you would have formed erroneous conclusions.

12. It may also happen, that when we have noticed all the attributes, our judgment may be kept in suspense from *the conflicting character of these attributes.* If we have to hire

servants, those who are most skilled may be deficient in sobriety, or, if not deficient in sobriety, they may be deficient in industry, or in cleanliness. If we want a house, we cannot find one that has all the attributes we require. If we wish to emigrate, we can discover no colony exactly suited to our circumstances. In these cases we must balance the attributes one against the other. Here, a full knowledge of the subject, and plenty of common sense, are the best guides. The rules of logic, however, will teach us to decide coolly and systematically. The best way is that of Dr. Franklin. Write down on paper *first*, all the reasons for the affirmative, and *then* all the reasons for the negative. Having all the reasons thus before your eyes, weigh them deliberately, and see which preponderate.

> Let thine eyes look right on,
> And let thine eyelids look straight before thee;
> Ponder the path of thy feet,
> And let all thy ways be established.—*Prov.* iv. 25, 26.

The following illustrations of this principle of Reasoning, are taken from the author's writings on Banking:—

1.—Attributes of a Banker.

To be a good banker requires some intellectual and some moral qualifications. A banker need not be a man of talent, but he should be a man of wisdom. Talent, in the sense in which the word is ordinarily used, implies a strong development of some one faculty of the mind. Wisdom implies the due proportion of all the faculties. A banker need not be a poet or a philosopher—a man of science or of literature—an orator or a statesman. He need not possess any one remarkable quality by which he is distinguished from the rest of mankind. He will possibly be a better banker without any of these distinctions. It is only necessary that he should possess a large portion of that practical quality which is called common sense. Banking talent (using the word *talent* here in the sense of adaptation of character to any particular pursuit) consists more in the union of a number of qualities, not in themselves individually of a striking character, but rare only in their combination in the same person. It is a mistake to suppose that banking is such a routine employment that it requires neither knowledge nor skill. The number of banks that have failed within the last fifty years is sufficient to show that to be a good banker requires qualities as rare and as important as those which are necessary to attain eminence in any other pursuit.

2.—Attributes of the London and Westminster Bank.

The capital of the bank is 5,000,000*l.* sterling, in 50,000 shares of 100*l.* each. The sum of 20*l.* has been paid on each share, so that the paid-up capital is 1,000,000*l.* sterling. This presents the most perfect security to the public, and gives the bank the most ample means for affording to its customers every reasonable accommodation.

The bank has above eleven hundred partners, whose names are registered at the Stamp Office, and are printed with the Annual Report of the Directors. The advantage obtained by a joint-stock proprietary is, that those partners who are customers to the bank participate in the profits made by their own accounts.

Current accounts are received on the same principles as those observed by the London bankers. Every person connected with the establishment signs a declaration of secrecy as to the accounts of individuals. No Christmas boxes or other gratuities are allowed to be taken by the officers of the bank. The bank also takes the agency of joint-stock banks, private bankers, and other parties residing at a distance.

Parties who are desirous of having current accounts, without being under the necessity of keeping a balance, are charged a small commission, proportionate to the amount of their transactions. This extends the advantage of a banking account to parties having moderate incomes, or who in the course of their business find ample employment for their capital.

Sums from 10*l.* to 1,000*l.* are received on deposit, at a rate of interest to be fixed at the time, and they are repayable upon demand, without notice. For these sums, receipts are granted, called deposit receipts. By allowing interest on small sums, the benefit of the deposit system as practised in Scotland, is extended to all classes of the community.

Sums of 1,000*l.* and upwards are also received on deposit receipts, upon such terms as may be agreed upon, with regard to the rate of interest, and the time of repayment. Trustees and others who have money which they cannot immediately employ, may thus obtain interest for it, until an opportunity occurs for its permanent investment. Parties may lodge money upon an interest account who have no current account, and those who have current accounts may transfer any portion of their balance to an interest account.

3.—Attributes of a Country Private Bank.

These banks cannot have more than six partners. They are banks of deposit, of loan, and of discount. As banks of deposit, they usually allow interest on both deposits and balances of current accounts, and charge a commission on the amount of the transactions. In commercial or manufacturing districts their advances are usually made by way of discount; in agricultural districts, frequently by loans. They remit

money by issuing bills or letters of credit on London, or they direct their agents to make payments to bankers or other parties resident in London. As banks of circulation, they have at various times occupied a large portion of public attention, and have been the subject of much legislation.

Those bankers who wish to issue notes must take out a licence, which will cost 30*l.*, and must be renewed every year. They may re-issue any notes not above the value of 100*l.* as often as they think proper. And should any of the firm die or remove from the business, the notes may be issued by the remaining partners. But they cannot be re-issued by a new firm, which does not include any member belonging to the firm by whom the notes were first issued.

4.—Attributes of Bills of Exchange.

A bill of exchange is a written order from one person to another, directing him to pay a sum of money either to the drawer or to a third person at a future time. This is usually a certain number of days, weeks, or months, either after the date of the bill, or after sight; that is, after the person on whom it is drawn shall have *seen* it, and shall have written on the bill his willingness to pay it. The party expresses this willingness by writing on the bill the word "*accepted*," and his name. If the bill be drawn after sight, he also writes the date of the acceptance.

The person who draws a bill is called the drawer; the person on whom it is drawn is called the drawee: after the bill is accepted the drawee is called the accepter. The person who indorses a bill is called the indorser; the person to whom it is indorsed is the indorsee. The person who pays a bill is the payer; the person to whom it is paid is the payee. The word discountee, denoting the person for whom a bill is discounted, is not used in England, but I observe in the parliamentary evidence that it was employed by some of the witnesses from Scotland.

In doubtful cases, the banker, before discounting a bill, will probably look through his books, and satisfy himself with regard to the following inquiries:—

What is the character of the customer? This inquiry will be answered from the Information Book. What is the usual balance of his cash accounts? This will be answered by the Daily Balance Book. What amount has he now under discount? This will be answered from the Discount Ledger, and will suggest other inquiries. Is that amount greater or less than usual? What proportion does that amount bear to the average amount of his cash balance? Is the amount chiefly upon few parties, or is it divided among a number? Have their bills been discounted chiefly upon the strength of the customer, or upon the strength of other parties? Are his bills generally paid? He will then

proceed to inquire about the other parties to the bill. What is the character of the accepter in the Information Book? What is the nature of the transactions between the customer and the accepter, as far as can be ascertained? Has he had any bills upon him before, and have they been punctually paid? Are there any bills upon him now running, and how soon will they become due?

5.—Attributes of Cash Credits.

A cash credit is an undertaking on the part of the bank to advance to an individual such sums of money as he may from time to time require, not exceeding in the whole a certain definite amount, the individual to whom the credit is given entering into a bond with securities, generally two in number, for the repayment on demand of the sums actually advanced, with interest upon each issue from the day upon which it is made.

Cash credits are rarely given for sums below 100*l.*; they generally range from 200*l.* to 500*l.*, sometimes reaching 1,000*l.*, and occasionally a larger sum.

A cash credit is, in fact, the same thing as an overdrawn current account, except that in a current account the party overdraws on his own individual security, and in the cash credit he finds two sureties who are responsible for him. Another difference is, that a person cannot overdraw his current account, without requesting permission each time from the bank; whereas the overdrawing of a cash credit is a regular matter of business,—it is in fact the very thing for which the cash credit has been granted.

6.—Attributes of a Speculation.

Banks of circulation have also been accused of encouraging a spirit of speculation.

To obtain clear ideas as to the justice of this charge, it will be necessary to define accurately the nature of speculation, and to view the circumstances by which it is governed.

Between the producer and the consumer of any commodity there are generally two or more parties, who are merchants or dealers. The demand for any commodity is either a speculative or a consumptive demand. The demand by the consumers who purchase for immediate use, is always a consumptive demand. But if the commodity purchased be not intended for immediate use, but is purchased at any given time, merely because the purchaser apprehends that its price will advance, then is that demand a speculative demand. So, if a merchant purchase of a manufacturer, or a farmer, such a quantity of commodities, as, in the ordinary course of his trade, he is likely to require, that demand may be considered a consumptive demand; but if, in expectation of a rise in price, he fills his warehouses with goods for

which he has no immediate sale, then is that demand a speculative demand. A speculation, then, is that kind of traffic in which the dealer expects to realize a profit, not by the ordinary course of trade, but by the intervention of some fortuitous circumstance that shall change the price of the commodity in which he deals.

A speculation in any commodity, therefore, is occasioned by some opinion that may be formed of its future price. It is well known that the price of commodities is governed by the proportion that may exist between the supply and the demand. Whatever increases the supply or diminishes the demand will lower the price; and, on the contrary, whatever diminishes the supply, or increases the demand, will advance the price. The greater part of our food, and the materials of most of our clothing, are produced by the seasons; and the quantity produced in each year depends, in a great degree, upon the most uncertain of all things,—the weather. Here, then, is a wide field for speculation. If our food, like the manna in the wilderness, were supplied to us day by day, in exactly the quantity that each individual required, it would furnish no subject for speculation. But as long as the seasons are variable in the quantity of their productions, so long will speculation exist. Many commodities, too, besides being influenced by the seasons, are influenced by several other circumstances,—as a state of peace or war,—the opening of new markets,—the discovery of cheaper modes of production,—or the substitution of a rival commodity; all these circumstances have an effect upon price, and the dealer who buys or sells any commodity in expectation that an alteration in price will be produced by such causes, is a speculator.

Now, it is obvious that no system of banking can prevent speculation, and that speculations would be formed, even were there no bank in existence. We learn from Holy Writ, that the owners of corn sometimes refused to sell, in expectation of an advance of price. These were speculations, though Judea had neither banks nor paper money. If it be said that the country banks are the cause of speculation, I will ask how it is that speculations exist in countries where there are no country banks? If it be said that the issuing of country notes is the cause of speculation, I will ask how it is that Liverpool is the most speculative place in England, although the Liverpool bankers do not issue notes? If it be said that the speculations of 1825 were produced by the country banks, I will ask, what produced similar speculations in 1720, when there was not a single country bank in the kingdom?

SECTION II.

THE RELATION OF A WHOLE AND ITS PARTS.

You must observe that some ideas have no parts. Such are many attributes. The colours green, red, blue, have no parts; nor have the tastes sweet, sour, bitter, &c.; nor the sounds, loud, sharp, shrill, &c.; nor the various smells. The things that have parts are subjects having attributes. Such are all animals, all vegetables, all material objects, and all particles of matter, and all mechanical instruments, of every kind. An animal may be divided into head, trunk, and limbs. A tree may be divided into root, trunk, branches, leaves, and fruit. A steam-engine may be divided into the several parts of which it is composed. A day may be divided into hours. A book may be divided into parts, or chapters, and those parts or chapters may be subdivided into sections or verses. An art or science may be divided into parts. Political economy may be divided into production, distribution, interchange, and consumption. The business of a manufactory may be divided into its various operations. A cotton manufacture may be divided into the departments of spinning, weaving, dyeing, and printing. A pound sterling may be divided into shillings, and each shilling into pence. A bushel may be divided into gallons, and each gallon into quarts and pints. A mile may be divided into furlongs, and each furlong into yards. A ton weight may be divided into hundreds, and these into pounds and ounces. A palace may be divided into apartments. A house may be divided into rooms. A farm may be divided into acres.

We shall consider the relation between a whole and its parts, with reference to arithmetical numbers, physical objects, and moral ideas.

1. With regard to arithmetical number.

Any arithmetical number may be divided into as many parts as it contains units; and again, a unit may be divided

into any number of fractional parts. It is obvious, that all the parts into which any number is divided must, when added together, be equal to the whole number. A sovereign is equal to twenty shillings; if, then, you receive in exchange for a sovereign only nineteen shillings, you will infer that you have not the whole. A pound weight is equal to sixteen ounces; if, then, in buying a pound of tea, or of sugar, you get only fifteen ounces, you will infer that you have not the whole.

Again, if two numbers that are equal to one another be multiplied respectively by any number, the products will be equal. If one Indian rupee be equal to one shilling and tenpence, you will infer that twenty rupees will be equal to twenty times one shilling and tenpence. So also—

If equal numbers be added to equal numbers, the totals will be equal.

If equal numbers be subtracted from equal numbers, the remainders will be equal.

If equal numbers be divided by equal numbers, the quotients will be equal.

These maxims are too obvious to require any illustration. They form the foundation of much of our reasoning with regard to figures and quantities.

Addition, subtraction, multiplication, and division, are the four operations with regard to numbers, and these operations are often called into exercise, not only with regard to our physical, but also with regard to our moral reasonings.

If you are a clerk in a public office, and are behind your time a quarter of an hour every morning, that will amount in three hundred days to seventy-five hours; more than equal at six hours a-day to a holiday of twelve days in the course of the year. A large number of small parts will make a great whole.

The following anecdote *proves*, by multiplication, the importance of punctuality:—

"A member of the Committee being a quarter of an hour behind the time, made an apology, saying, the time passed away without his being aware of it. A Quaker present said—'Friend, I am not sure that we

should admit thy apology. It were matter of deep regret that thou shouldest have wasted thine own quarter of an hour; but there are seven besides thyself, whose time thou hast also consumed, amounting in the whole to two hours—and one-eighth of it only was thine own property.' "

While we *multiply* in order to prove the importance of an object, we use *division* when we wish to produce a contrary impression. Mr. Norman, the Bank Director, published a pamphlet to show the lightness of our taxation. He divided the total amount of the taxes by the total number of the population; and he inferred that the taxation was light from the small average amount paid by each individual.

2. We shall next consider this principle of the whole and its parts with reference to physical objects.

By physical objects we mean objects known to the senses, —such as relate to what is called natural philosophy. By chemistry we ascertain what are the parts of which these objects are composed. And hence we infer the purposes to which they may be applied. Thus, we learn that certain substances may be employed as medicines; and we discover the effects of particular kinds of food.

The relation of a whole and its parts has sometimes a reference to questions in political economy.

"Let us now observe how the value of a commodity resolves itself into three component parts. Take for instance a load of hay; its price pays first the wages of the labourer who cut down the grass and made it into hay—then the profits of the farmer who sells it,—and lastly, the rent of the field in which it grew. This, therefore, constitutes the whole cost of production of the load of hay, and may be called its natural value."—*Mrs. Marcet.*

3. We shall now consider the application of this principle to moral ideas.

The word moral is not used here in its ethical sense, as opposed to immoral, but as opposed to physical. We cannot divide these ideas into parts so readily as we can divide arithmetical numbers, or separate the parts of a material substance. Hence we often use the words *imply* or *include*, in order to denote the simple ideas of which they are com-

posed. So *gratitude* includes a consciousness of favours received — a disposition to acknowledge them on proper occasions—and a resolution to return them when an opportunity occurs. *Honour* includes a regard to truth in words—humanity and generosity in actions—candour and forgiveness in thought, and resentment of insult or affront.

The following illustrations of this principle of Reasoning, are taken from the author's writings on Banking:—

1.—Parts of Coins.

The calculations which refer to the transmission of gold from one country to another, are very important. To these we will now refer.

In England the precious metals are weighed by the pound Troy. The following is the table:—

24 Grains	make	1 Pennyweight.
20 Pennyweights		1 Ounce.
12 Ounces		1 Pound.

Standard gold is what is called 22 carats fine; that is, 22 parts of pure gold are mixed with 2 parts of alloy. This alloy consists chiefly, we believe, of copper. Our silver coins have 18 pennyweights of alloy in the pound.

A pound weight of gold is coined into 44½ guineas, and in the same proportion for sovereigns. An ounce of standard gold is worth 3*l.* 17*s.* 10½*d.*; being the twelfth part of 46*l.* 14*s.* 6*d.*, the value of a pound weight of gold.

A pound weight of silver is coined into 66 shillings; and in the same proportion for crowns, half-crowns, and sixpenny pieces.

1 lb. avoirdupois of copper is coined into 24 pence—equal to 240*l.* out of a ton. The old pennies weighed exactly an ounce avoirdupois; so that in buying an ounce of any commodity, a poor man might, if he thought he had short weight, use a penny piece for the weight. For some years past, the penny has been only two-thirds of an ounce.

The Money Table of the United States stands thus:—

10 Milles	make	1 Cent.
10 Cents		1 Dime.
10 Dimes		1 Dollar.
10 Dollars		1 Eagle.

The following is the Table for East India Money:—

12 Pice	make	1 Anna.
16 Annas		1 Rupee.
100,000 Rupees		1 Lac.
100 Lacs		1 Crore.

Taking the rupee at 2*s.*, a crore of rupees is equal to 1,000,000*l.* sterling. A lac is, of course, 10,000*l.* The figures expressing Indian money are not easily understood by Europeans. The capital of the Bank of Bombay is stated at 52,25,000 rupees, and the capital of the Bank of Bengal at 1,10,13,580 „ 1 „ 7. These figures should be respectively read thus:—Fifty-two lacs, twenty-five thousand rupees—One crore, ten lacs, thirteen thousand five hundred and eighty rupees, one anna, and seven pice.

2.—Parts of Banking among the Romans.

Their mode of transacting business was somewhat similar to that which is in use in modern times. Into these houses the state or the men of wealth caused their revenues to be paid, and they settled their accounts with their creditors by giving a draft or cheque on the bank. If the creditor also had an account at the same bank, the account was settled by an order to make the transfer of so much money from one name to another. To assign over money, or to pay money by a draft, was called *perscribere* and *rescribere*; the assignment or draft was called *attributio.* These bankers, too, were money-changers. They also lent money on interest, and allowed a lower rate of interest on money deposited in their hands. In a country where commerce was looked upon with contempt, banking could not be deemed very respectable. Among most of the ancient agricultural nations, there was a prejudice against the taking of interest for the loan of money. Hence the private bankers at Rome were sometimes held in disrepute, though those whom the government had established as public cashiers, or receivers-general, as we may term them, held so exalted a rank that some of them became consuls.

The Romans had also loan banks, from which the poor citizens received loans without paying interest. We are told that the confiscated property of criminals was converted into a fund by Augustus Cæsar, and that from this fund sums of money were lent without interest to those citizens who could pledge value to double the amount. The same system was pursued by Tiberius. He advanced a large capital, which was lent for a term of two or three years to those who could give landed security to double the value of the loan. Alexander Severus reduced the market rate of interest by lending sums of money at a low rate, and by advancing money to poor citizens to purchase lands, and agreeing to receive payment from the produce.

3.—Parts of the Business of Modern Banking.

The exchanging of money, the lending of money, the borrowing of money, the transmitting of money, are the four principal branches of the business of modern banking, and in most countries they seem to have taken their rise in the order in which they are here named.

A division of labour among banking institutions is by no means a new idea. There is scarcely any bank that carries on every branch of the business of banking. The dealing in foreign exchanges, which form so large a portion of the business of Continental bankers, is quite unknown to English bankers; it is confined to merchants, or to large moneyed houses, like the Messrs. Rothschild. In London, the West-end bankers, as Messrs. Coutts and Messrs. Drummond, do not discount commercial bills, but confine their advances to mortgages, as their connexions lie chiefly among the aristocracy, while the City bankers look on mortgages with horror, and make their advances by the discount of bills and short loans on personal security. Loan banks, or Monts de Piété, have been in existence for several centuries as a distinct branch of business, and loan societies are now sanctioned with us by Act of Parliament. Some London bankers do not take the agency of country banks, while the agency of colonial and foreign banks is often taken by mercantile houses, who carry on no other part of the business of bankers. I might add to these illustrations; but these are enough to show that division of labour among banking institutions is accordant with every-day practice, and therefore the new exchange banks, in marking out for themselves a particular line of conduct, cannot be charged with any deviation from acknowledged principles.

The advocates of one bank of issue seem to think that they strengthen their cause prodigiously by contending that the issuing of notes is no part of the business of banking. Hence they use the phrase "country issuers," not country banks. Arguments, founded on verbal distinctions, are seldom worthy of a serious refutation. Bankers, and none but bankers, have issued notes in this country for the last one hundred and fifty years. It seems, therefore, very natural to suppose that the issuing of notes is a part of their business. But were it otherwise, how would that prove the propriety of establishing a sole bank of issue? The argument stands thus—the Legislature ought to establish one bank of issue, *because* the issuing of notes is no part of the business of a bank. How very profound!

Another argument is that the profit of a paper circulation belongs to the nation, and this profit can be most advantageously realized by the establishment of a sole bank of issue. Upon a practical question abstract reasoning is out of place. We will not discuss the question of national right; but at once admit that, should Her Most Gracious Majesty, by and with the advice of her Lords spiritual and temporal, and her faithful Commons in Parliament assembled, determine to take upon herself the sole power of issuing notes against securities and gold, and exchanging notes for gold, she has a perfectly constitutional right

so to do. But we very much question whether this would be the plan the best adapted for bringing a large sum into the royal treasury.

4.—Parts of the Trading Capital of a Bank.

Banking is a kind of trade, carried on for the purpose of getting money. The trade of a banker differs from other trades, inasmuch as it is carried on chiefly from the money of other people.

The trading capital of a bank may be divided into two parts: the invested capital, and the banking capital. The invested capital is the money paid down by the partners for the purpose of carrying on the business. This may be called the real capital. The banking capital is that portion of capital which is created by the bank itself in the course of its business, and may be called the borrowed capital.

There are three ways of raising a banking or borrowed capital: first, by receiving deposits; secondly, by the issuing of notes; thirdly, by the drawing of bills. If a person will lend me 100*l.* for nothing, and I lend that 100*l.* to another person at four per cent. interest, then, in the course of the year, I shall gain 4*l.* by the transaction. Again, if a person will take my "promise to pay," and bring it back to me at the end of the year, and pay me four per cent. for it, just the same as though I had lent him 100 sovereigns, then I shall gain 4*l.* by that transaction; and again, if a person in a country town brings me 100*l.* on condition that, twenty-one days afterwards, I shall pay the same amount to a person in London, then, whatever interest I can make of the money during the twenty-one days, will be my profit. This is a fair representation of the operations of banking, and of the way in which a banking capital is created by means of deposits, notes, and bills.

In all countries where capital has accumulated, there is a class of men who become dealers in capital. They are not themselves engaged in trade, but they furnish merchants and traders with such temporary supplies of capital, as they may occasionally or periodically require. These men are styled bankers. It is their business to economise the national capital—to increase the rapidity of its circulation—and thus to render it more productive. In a district where there is no banker, a merchant or trader must always keep by him a sum of money adequate to meet any sudden demand. But when a bank is established, he need not retain this sum. He may trade to the full amount of his capital, and if he should have occasion for a temporary loan, he may obtain it by way of discount from the bank. Thus the productive capital of this country is increased. The banker is a depositary of capital. He is like the fly-wheel of an engine, he either receives or communicates power, as the occasion may require, and thus maintains the firmness and increases the efficiency of the machinery of commerce.

Bankers are not merely lenders of capital—they are dealers in capital. They borrow of those who wish to lend—they lend to those who wish to borrow. The borrowing of capital is effected by the system of deposits. Not merely merchants and traders, but persons out of trade; noblemen, gentlemen, farmers, and others, have usually in their possession small sums of money, which they keep by them to meet their occasional expenses.—When a bank is established in their neighbourhood, they lodge the sums of money upon interest with the bankers. Individually they may be of small amount, but collectively they make a considerable sum, which the banker employs in granting facilities to those who are engaged in trade and commerce. Thus, these little rivulets of capital are united and form a powerful stream, which propels the wheels of manufactures, and sets in motion the machinery of industry.

Bankers also employ their own credit as capital.—They issue notes, promising to pay the bearer a certain sum on demand. As long as the public are willing to take these notes as gold, they produce the same effects. The banker, who makes advances to the agriculturist, the manufacturer, or the merchant, in his own notes, stimulates as much the productive powers of the country, and provides employment for as many labourers, as if, by means of the philosopher's stone, he had created an equal amount of solid gold. It is this feature of our banking system that has been most frequently assailed. It has been called a system of fictitious credit—a raising the wind—a system of bubbles. Call it what you please, we will not quarrel about names; but by whatever name you please to call it, it is a powerful instrument of production. If it be a fictitious system, its effects are not fictitious; for it leads to the feeding, the clothing, and the employing of a numerous population. If it be a raising the wind, it is the wind of commerce, that bears to distant markets the produce of our soil, and wafts to our shores the production of every climate.—If it be a system of bubbles, they are bubbles which, like those of steam, move the mighty engines that promote a nation's greatness and a nation's wealth.

Thus a banker in three ways increases the productive powers of capital. First—he economises the capital already in a state of employment. Secondly—by the system of deposits, he gives employment to capital that was previously unproductive. Thirdly—by the issue of his own notes he virtually creates capital by the substitution of credit.

Banking promotes the prosperity of the country, chiefly by increasing the amount and efficiency of its capital. In the history of commerce we find no principle more firmly established than this—that as the capital of a country is increased, agriculture, manufactures, commerce, and industry will flourish; and when capital is diminished, these will decline. The man who attempts to annihilate any portion of the capital of the country in which he dwells, is as forgetful of his own

advantage as the miller who should endeavour to dry up the mountain-stream which turns the wheels of his machinery, or the farmer who should desire to intercept the sun and the showers which fertilize his fields.

5.—The Division of Labour.

There is scarcely any principle of higher practical value to a community than that of the division of labour. This principle is, indeed, so obvious in its application and its results, that it is in some degree acted upon even in the rudest state of society; but it is only under the influence of advancing civilization, that its importance becomes fully developed. Then the industry of each individual becomes limited to nearly one operation, and the various branches of human labour are gradually distributed into independent trades.

There is no mystery in the action of this principle. It is founded upon general experience, by which we know that when the mind is concentrated upon a single pursuit, it will accomplish its purpose more completely than if its energies were scattered and diverted amongst a variety of pursuits; and that the frequency of performing the same operation produces a promptitude and facility in its performance which cannot otherwise be attained. These maxims are quite as applicable to commercial and intellectual operations, as to those which are purely manual: and, as we have already observed, they become more fully carried into practice as civilization advances. With the improvement of society, trades are multiplied. An increased number of trades denotes an improvement in our social system: and any attempt to unite two or more distinct trades must be regarded as a retrogade movement towards barbarism.

In the less improved state of society, banking was carried on in conjunction with other trades. The Lombard bankers were general merchants. The "new-fashioned bankers," the predecessors of the London bankers, were goldsmiths. But in the present day the opinion has been gaining ground, that a banker should be a banker, and nothing but a banker.

The violation of this principle was one great cause of the failure of so many of the private country banks. The private bankers were corn merchants, manufacturers, shopkeepers, &c., as well as bankers. The trading concern usually absorbed all the funds of the banking concern; the bank became the instrument of trading speculation; the trading speculation failed, and brought down the bank. We believe it will be found that in most cases this was the cause of the failures of the country bankers. They failed as traders, not as bankers. The individual who embarks in both undertakings is generally a bad banker and a bad trader. Excellence cannot be attained in either character, but by confining the attention and the energies to one class of operations. One of the most striking advantages which the joint-stock banks possess

over the private bankers is, that the deed of partnership in most cases contains a clause which prohibits the company from engaging in any other business than banking.

Convinced as we are of the importance of this principle, we regret to see any departure from it either at home or abroad.

The Americans are frequently guilty of this erroneous conduct. Many of their banks are connected by their charters with canals or other public works; sometimes even with branches of manufacture. To such an extent is this carried, that we have heard of one instance in which a charter conferred upon a certain company the privilege of banking, and of extracting sugar from beet-root! In a country where such absurdities are permitted to take place, it is not surprising that the bank of the United States should be found engaging extensively in the purchase and exportation of cotton. They will, no doubt, contend that they are justified in this strange union of callings by the example of other banks, and that it is done to promote the national welfare by influencing the foreign exchanges. But no defence is admissible. A bank should be nothing but a bank. A departure from sound principle can never be justified on the ground of expediency, even when that expediency can be clearly proved. If the conduct of public bodies is to be governed by the expediency of the moment, of what use are principles, and what general rules can be laid down for their government?

Every act of interference on the part of a bank with any business ordinarily carried on by other agents, we consider as a departure from this principle.

SECTION III.

THE RELATION OF GENUS AND SPECIES.

THIS relation is founded upon the act of classification. Let us take a tree. There are many kinds of trees, as the oak, the elm; and there are a great number of oaks and elms. Here, then, a tree is the GENUS; oak, elm, are the *species;* and a particular oak or elm that we may happen to see, is an individual.

In all the branches of natural history, classification is very generally introduced. It is a rule, that the GENUS *can always be predicated of each species.* Thus we can say, an oak is a tree, an elm is a tree, a vine is a tree. This shows that tree is a genus, and that oak, elm, and vine, are species under that particular genus. We may say, a horse is an animal, an ox is an animal, a dog is an animal. This proves that animal is a genus, and that dog, horse, and ox, are species under that genus. Each species may again be divided into inferior species, as there are various kinds of dogs, horses, and oxen.

Genus and species have a reference to moral ideas, as well as to physical ones. Thus we may say, industry is a virtue, frugality is a virtue, temperance is a virtue. This shows that virtue is a genus, and that frugality, industry, and temperance are its species.

You will observe that, although I call this, for brevity's sake, the relation of genus and species, you must always remember that, while a genus may be divided into species, each species may again be subdivided into individuals. I use these words, genus and species, being words in common use, to express the general idea of classification. The word genus denotes a large class—the word species a small class included in the large class. This small class may sometimes be again subdivided into smaller classes, and an individual is a single thing forming a part of the smallest class. It is clear that any single thing included in a smaller class must

be included in a larger class. This is the foundation of all our reasonings from the relation of genus and species.

1. The mode of reasoning from genus and species is merely to show that a certain species is properly classed under a certain genus, and then to affirm or deny of the species what you may affirm or deny of the genus.

Thus you may say, All fruit is useful to health: the apple is a kind of fruit, therefore the apple is useful to health. I may observe that this principle of reasoning from genus to species is the only kind of reasoning in which you gain anything by placing it in the form of a syllogism. And here, mind, the argument gains nothing in point of strength, but *sometimes* it gains in point of clearness; or, at least, it gives a clearer statement of the meaning of the reasoner. We will here present the reader with a few examples:—

Bills having more than three months to run will not be discounted at the Bank.
This bill has more than three months to run.
Therefore this bill will not be discounted at the Bank.

A banker should never advance money on dead securities.
Mortgages are dead securities.
Therefore a banker should never advance money on mortgages.

All the notes of the Bank of England issued at the branches are payable also in London.
This Bank of England note was issued at the Birmingham Branch.
Therefore the payment of the note may be demanded either at Birmingham or in London.

No clergyman can be a director of a trading company.
A Joint-Stock Bank is a trading company.
Therefore no clergyman can be a director of a Joint-Stock Bank.

2. The application of a general principle to a particular case, is another mode of reasoning, from the relation of genus and species.

In the application of general proverbs we reason from the relation of genus and species.

Thus, "Honesty is the best policy." Therefore, when a public company has sustained losses, it is the best policy to announce them in its annual report to the shareholders, as

that is the most honest procedure. This is one of the numerous cases to which this maxim may be applied. Dr. Franklin describes several specific characters under the genus that they "paid too dear for their whistle." And in daily life we meet with people to whom is applied the maxim that "they have too many irons in the fire;" or that "they carry too many eggs in one basket;" or that "they are penny wise and pound foolish." In these cases the proverb is regarded as the genus, and the particular case to which it is applied is the species. This will appear the more evident if placed in the form of a syllogism.

It is unwise to have too many irons in the fire.

The man who carries on more trades than he can attend to, has too many irons in the fire.

Therefore, the man who carries on more trades than he can attend to, acts unwisely.

Rules and examples in any art or science sustain the relations to each other of genus and species.

Take the following general rule in grammar from Lindley Murray:—"Two or more nouns, &c. in the singular number joined together by a copulative conjunction, expressed or understood, must have verbs, nouns, and pronouns agreeing with them in the plural number." Here is the general rule. Now, when we meet with two or more nouns, joined together in the manner stated, we apply the rule, and if we find that the verbs, nouns, and pronouns agreeing with them are put in the plural number, we infer that the sentence is grammatical; but, if otherwise, we say the sentence is ungrammatical. Now then, try by this rule the following sentences:—"Socrates and Plato *were* wise; *they* were the most eminent philosophers of Greece." Here the rule is observed. "And so *was* also James and John, the sons of Zebedee, who were partners with Simon." Here the rule is violated.

You perceive then that the *application of any general rule to a particular case, is a logical process,* and forms an argument on the principle of genus and species. I may also observe, that although in teaching an art systematically, we lay down our rules first, and then give the examples, yet, in the

practical operations of teaching, especially in conversation, it is usually best to state the example first, and then state the rule as a deduction from the example. Indeed, most general rules were probably in the first instance deduced from examples. Men did not invent grammar first, and then learn to speak, but speech existed before grammar. The same remark may be applied very extensively. Poets existed before critics, and the practical arts before the sciences.

3. Under this head of genus and species we may place reasoning from the definition.

The genus and the specific difference, as we have already stated, are joined together to make a formal definition. Thus in the example quoted from Dr. Watts, at page 22, *juice* is the genus, and *pressed from grapes* the specific difference, and those together, the juice of the grape, is the definition of wine. A definition formed in this way by the union of the genus and the difference, is called by scholastic logicians a *formal* definition. We cannot always obtain a definition of this kind, but when we can do so, we may reason from it in various ways.

We may infer that everything to which this definition will apply are so many species under this generic term. Thus, port, sherry, claret, champagne, being all juices of grapes, are so many species of wine. All subjects will not, as we have said, admit of this formal definition. But you may generally commence your definition by stating the genus or general nature. Thus, if asked what is justice, you may say it is "a moral virtue." This is the genus. And then you may state wherein it differs from other moral virtues, as temperance, cleanliness, patience, &c.; and you may say, justice is a moral virtue which consists in giving to every one his due. Now, having got a definition, you may consider it as a species, and affirm of it what you may affirm of the genus. Thus, having defined justice to be a moral virtue, you may infer that it ought to be cultivated, inasmuch as all the moral virtues ought to be cultivated. Then you may consider the definition as a general principle applicable to individual cases. And as the specific difference of justice consists "in giving to every one his due," you will infer that a master who defrauds

his servant of his wages, a tradesman who cheats his creditors, a slanderer who speaks ill of worthy men, a magistrate who punishes the innocent, or who lets the guilty go free, does not act consistently with justice, as these parties do not give to every one his due.

4. We may observe, that all arguments formed on the relation of subject and attribute may also be brought under the relation of genus and species.

All subjects may be distributed into classes according to their attributes. Thus, some horses are of a grey colour. Now, we may consider grey as an attribute of the horses, or we may consider grey horses as forming a class, and our reasonings will be substantially the same, though, perhaps, changed in regard to form. Let us take an example from Dr. Watts:—

> "No liar is fit to be believed.
> Every good Christian is fit to be believed.
> Therefore, no good Christian is a liar."

Here the words "fit to be believed" express an attribute, and, as this attribute will not apply to both the subjects, we infer that these subjects are different. See page 32, No. 6.

But let us suppose that these words "fit to be believed" denote a class, then the argument will stand thus:—

> "No man who is fit to be believed is a liar.
> Every good Christian is fit to be believed.
> Therefore, no good Christian is a liar."

Here "fit to be believed" denotes a class of persons, and "a good Christian" is one of that class.

5. So, arguments founded on the principle of cause and effect may be brought under the principle of genus and species.

"A good education is highly valuable, for it softens the manners, and ameliorates the dispositions of the heart." Here is the relation of cause and effect. But a scholastic logician would not be satisfied with the argument in this form, but would turn it into genus and species. This is

done by making the *effect* a genus, and the *cause* a species, thus:—

"Everything that softens the manners, and ameliorates the disposition of the heart, is highly valuable.

"But a good education softens the manners and ameliorates the disposition of the heart.

"Therefore, a good education is highly valuable."

You will observe, that this relation of genus and species does not strengthen your argument. It rather weakens it; or, at least, it widens the field of objection. An opponent might deny your first proposition. He might say, "I do not admit that *everything* that softens the manners and ameliorates the disposition of the heart *is highly valuable.* For there are some things that produce these effects, but at the same time produce other effects of a dangerous character. Such things, for instance, it might be said, are theatrical exhibitions." Here you see a new field of argumentation is at once thrown open. Had you stuck to your original principle of cause and effect, you would have been on safer ground. It is never advisable in argumentation to put yourself in a position to be called upon to *prove the affirmative of a universal proposition.* If a single exception can be adduced, your proposition is refuted, and your argument is overthrown.

It is generally best to argue from those principles of reasoning which arise from the relation of the things themselves, and not to attempt by mere verbal changes to bring your reasonings under a different principle. You should be on your guard against this practice, lest you fall into that system of scholastic logic which refers only to the use of words, and leaves unnoticed the nature of things.

6. We reason erroneously from the relation of genus and species, when we place under the genus several species that do not belong to it, and then assert of each species what may be truly asserted of the genus.

Mrs. Opie, who had previously become a member of the Society of Friends, published a book entitled, "Illustrations of Lying in all its Branches." Under the class of "practical

lies," she places the practice of wearing false hair. This we think is an erroneous classification; for if we use the word liar in the sense in which it is usually employed, the wearer of false hair is not a species of that genus. A lie implies something immoral; but we do not think it is immoral to conceal defects that are inconvenient to the party himself, or that would be unpleasant to the beholders.

In actual life we often meet with erroneous classifications of this kind. The words "want of courtesy" is a general term, often unjustly applied to individual actions. A person goes to transact some business at a public office, and is detained much longer than he expected. He becomes irritated, and declares he is treated with want of courtesy; whereas the delay may have been occasioned by the necessary forms of the office, or by his own ignorance of those forms. When a servant for some trifling oversight is charged with "neglect of duty," it is a fallacy of the same kind. The words "neglect of duty" is a generic phrase that is applied only to cases of wilful or serious omissions. To apply it in trifling cases is to use it illogically. Whenever we wish to represent any act in its worst colours, we use generic terms of so wide a meaning as to include several species of offences of a deeper dye than that we are called upon to censure; and, on the other hand, when we wish to extenuate, we employ generic terms that shall include only offences of a lighter hue. All these are fallacies arising from erroneous classification similar to that we have exemplified from Mrs. Opie.

7. We must also avoid the error of confounding two or more species because they belong to the same genus.

Thus, when we find that two species resemble each other in some respects (which of course they always do), we should not infer that they resemble each other in all respects, For example—

"He that says you are an animal, says true. He that says you are a goose, says you are an animal. Therefore he that says you are a goose, says true." Here the two premises are true, and yet the conclusion is absurd. It is true that you are an animal, and that a goose is an animal, and

yet it is not true (of course I mean literally) that you are a goose: for you and the goose belong to different species, and although you resemble each other so far as to be properly classed under the same genus (animal), yet you cannot be asserted to be each other. So, dog, horse, camel, elephant, are species of animal, but a dog is not a horse, nor is a camel an elephant.

In the case of the genus "animal" we are not in much danger of falling into error. But we meet with similar errors elsewhere. I have read a debate in the House of Commons in which Unitarians were called Mahometans. Both these bodies agree in disbelieving the doctrine of the Trinity. But under this generic description, they form two widely different species, and one cannot logically be confounded with the other. You will often observe this practice in party writers. They will class the party against whom they write with some other party that has a disreputable name, and confound them both together under some generic description.

8. In reasoning from this relation of genus and species, we should carefully notice the kind of universality which is attributable to the genus; for, if the general proposition be taken in too extensive a sense, the conclusion will be erroneous.

You will find that some political economists lay down general propositions, and reason from them as though they possessed a mathematical universality. But, from the nature of the science, this cannot be the case. It is a moral science, and its general propositions have only a moral universality. I mean that these rules have a good many exceptions. For example: one of its principles is, that the Government should not interfere with matters of trade—a very good rule, as a general rule; but when we are told that this rule is so inflexible that the Government must not interfere even in behalf of humanity and religion, then we contend that its advocates claim for this rule a universality to which it is not entitled. In this sense we deny the soundness of the rule. Nay even those political economists who maintain most

strongly this principle, maintain at the same time that the Government ought to pass laws for the regulation of the currency—a subject with which trade has a very close affinity.

It is rarely that a mathematical universality can be obtained with regard to those propositions that we usually act upon in ordinary life. We believe that all noblemen have honourable and patriotic feelings—that all judges are impartial in their decisions—that all London merchants are honest in their dealings—that no clergyman would tell an untruth—that our friends, whose constancy we have tried, will never desert us—that a man who has maintained a high reputation for thirty years will maintain it as long as he lives. But we have only moral evidence for all these propositions, and we can get no more. He who, in these and similar instances, would refuse to act until he should obtain mathematical evidence, would show a want of that wisdom and decision which are essential to the good administration of the affairs either of a family, a commercial establishment, or a political community.

The following illustrations of this principle of reasoning are taken from the author's writings on Banking :—

1.—Classes of Public Companies.

This is the age of public companies. The principle of association is one of the most powerful agents of modern times. Whatever object we wish to accomplish—whether political or commercial, literary or religious—the first step is to form a society. Those joint-stock associations that involve the outlay of capital with a view to profit, are called public companies; and these form the subject of our present inquiries.

Public companies now occupy a distinguished place in our social economy. We receive our education in schools and colleges founded by public companies. We commence active life by opening an account with a banking company. We insure our lives and our property with an insurance company. We avail ourselves of docks, and harbours, and bridges, and canals, constructed by public companies. One company paves our streets, another supplies us with water, and a third enlightens us with gas. At home, numerous luxuries are brought within our reach by different companies. And if we wish to travel, there are railway companies, and steam-boat companies, and navigation companies, ready to whirl us to every part of the earth. And when, after all this

turmoil, we arrive at our journey's end, cemetery companies wait to receive our remains, and take charge of our bones.

2.—Classes of Banks.

Banks have been divided into private and public. A private bank is that in which there are but few partners, and these attend personally to its management. A public bank is that in which there are numerous partners, and they elect from their own body a certain number, who are intrusted with its management. The latter are usually called Joint-stock Banks.

The London banking establishments have not generally more than six partners; public companies are usually styled joint-stock-banks. The former may be divided into three classes:—

I. Those who are members of the Clearing-house.
II. Those located east of Temple-bar, but are not members of the Clearing-house.
III. Those located west of Temple-bar.

The Clearing Banks are banks of deposit and of discount, and they act as agents to the country banks. The banks in Fleet-street and in Westminster do not usually discount bills for their customers, nor act as agents to country banks. Their connections embrace chiefly the clergy, the gentry, and the nobility. Their loans to their customers are chiefly upon landed security, and they are supposed to hold a large amount of exchequer bills and other Government securities. Few of the London bankers allow interest on deposits, or charge commission on town accounts. Those who act as agents to country banks charge a commission on the debit side of the account, and some of them allow interest on the daily balance. Instead of a *pro rata* commission, some country banks pay their agent by a fixed annual payment, or by keeping in his hands a certain balance without interest. None of the present London bankers have ever issued notes, though, until the year 1844, they had legally the power of doing so. Several of them issue "Circular Notes," for the use of travellers on the Continent.

3.—Classes of Accounts.

By the Scotch Banks, deposit accounts are divided into two classes: "accounts current," and "deposit receipts." The "accounts current" are similar to the "current accounts" kept by merchants, traders, and others in the English banks. The party pays his money into the bank, and makes all his payments by cheques upon the bank. The deposit receipts are similar to what the English bankers call "dead accounts." The depositor pays his money into the bank, and there it lies "dead"

until he has occasion for it, and then he produces his receipt and withdraws the whole amount, or takes a new receipt for any part he wishes to leave. The deposit receipts are chiefly for the use of those who lodge their money in the bank merely for the purpose of security and interest. The accounts current are for those who, in addition to security and interest, wish to make use of the bank as a means of facilitating their pecuniary transactions.

4.—Classes of Bills.

The bills presented to a bank for discount may generally be divided into the following classes:—

1. Bills drawn by producers or manufacturers upon wholesale dealers.
2. Bills drawn by wholesale dealers upon retail dealers.
3. Bills drawn by retail dealers upon consumers.
4. Bills not arising out of trade, but yet drawn against value, as rents, &c.
5. Kites, or accommodation bills.

The first two classes of bills are the best, and are fair legitimate bills for bankers to discount.

The third class ought not to be too much encouraged. They are for comparatively small amounts, and are drawn by shopkeepers and tradesmen upon their customers. To discount these bills freely would encourage extravagance in the accepters; and ultimately, prove injurious to the drawers. When a man accepts bills to his butcher, baker, tailor, upholsterer, &c., he may fairly be suspected of living beyond his income. Solvent and regular people pay their tradesmen's accounts with ready money.

The fourth class of bills, though sometimes proper, ought not to be too much encouraged. Persons out of trade have no business with bills.

The last class of bills should almost always be rejected. To an experienced banker, who knows the parties, the discovery of accommodation bills is by no means difficult. They are usually drawn for even amounts, for the largest sum that the stamp will bear, and for the longest term that the bank will discount, and are presented for discount soon after they are drawn. The parties are often relations, friends, or parties who, from their avocations, can have no dealings with each other.

Not only the parties and the amounts of bills are matters of consideration to a banker, but also the time they have to run before they fall due. A bill drawn for a long term after date, is usually styled, not perhaps very properly, *a long-dated bill.* A bill drawn at a short term, is styled a short-dated bill.

5.—Classes of Loans.

Loans are divided into short loans and dead loans. Short loans are usually the practice of the London bankers; a time is fixed for their

repayment. Dead loans are those for the payment of which there is no specified time, or where the party has failed to make the repayment at the time agreed upon. In this case, too, the loan has usually been made upon *dead*—that is, upon inconvertible security. Without great caution on the part of the banker, *short* loans are very apt to become *dead* loans. A loan is first made for two or three months; the time arrives, and the customer cannot pay; then the loan is renewed, and renewed, and renewed, and ultimately the customer fails, and the banker has to fall back upon his securities.

6.—Classes of Circulation.

There is another piece of information which it is desirable to possess relative to the circulation of the Bank of England, and it is one which the bank cannot supply. It is desirable to know the difference in the amount of the active circulation and the dead circulation, so as to be able to trace their respective fluctuations. That portion of the notes of the Bank of England which is passing from hand to hand, may be called the active circulation. That portion which is hoarded, or kept in reserve to meet possible demands, may be called the dead circulation. Now it is quite certain that the dead circulation, while it remains in that state, has no effect upon the price of commodities, the spirit of speculation, or the foreign exchanges. These are affected only by the active circulation. In seasons of pressure the dead circulation is increased at the expense of the active circulation, because people hoard their money to meet contingencies. Hence we find the pressure is often more severe than the reduction of the bank circulation would seem to warrant. But the fact is, that the pressure is in proportion to the reduction of the active circulation, and not in proportion to the reduction of the whole circulation. On the other hand, in seasons of abundance, the dead circulation is diminished, the active circulation proportionably increased; and hence, the stimulus given to trade and speculation is much greater than the returns of the Bank of England would warrant us to expect. Now what means do we possess of getting at the amount of the dead circulation? The Bank of England can give us no information on the subject. But it seems probable that almost all the dead circulation is in the hands of the different banks—for very few private individuals keep any hoard of bank notes. If then, all the bankers and banks be required to produce returns of the amount of Bank of England notes in their possession, this might enable us to form a judgment as to the amount of the dead circulation.

7.—Classes of Persons to whom Books on Banking are Useful.

There are several classes of persons to whom I think these books may be more particularly useful.

The first class includes those public men who have occasion to write

or to speak upon our banking institutions. Statesmen, authors, and reviewers, however correct may be their knowledge of banking as a science, often fall into mistakes when they attempt to describe its practical operations. Although it must be admitted that the principles of banking may be well understood without any acquaintance with details, yet it is equally true that if a public man have acquired a competent degree of practical information, his opinions will carry greater weight, and he will be less liable to fall into erroneous conclusions. They, especially, who are desirous of altering the constitution of our banking establishments, should be anxious not to weaken the force of their recommendations by making misstatements as to matters of fact. The public have a right to expect that they who attempt to improve a system should be well acquainted with the system they attempt to improve.

The second class are those who are practically engaged in banking operations. Those directors of our joint-stock banks, who may have been appointed chiefly on account of their high character and local influence, may derive from this work some practical information, which will assist them in the discharge of their official duties. Young men, too, who occupy subordinate stations in our banking establishments, may here acquire those enlarged views that will qualify them for higher appointments. One object of the work is to aid the formation of good practical bankers. Even to experienced bankers, books on banking are useful, not only from the information they impart, but from the impressions they produce, and the recollections they awaken. In banking, as in morals, we often go astray, more from want of firmness than from want of knowledge. We have all need to be reminded of the importance of a steady adherence to sound principles. And the more frequently the right path is pointed out to us, the less likely are we to wander into those which are forbidden.

The shareholders in joint-stock banks are a class to whom the subject must be of the deepest interest. Upon the wise administration of their respective banks will depend the amount of their dividends, and the safety of their capital. This book professes to show in what way this wise administration may be secured. Shareholders may here learn how to judge of the conduct of their directors, and (what is of no less importance) how to regulate their own.

To all persons who "keep bankers," it must be useful to know by what rules bankers manage their business. They will thus be able to conduct their account so as to give satisfaction to their banker; and they will be able to judge how far he may be disposed to grant them such assistance as they may occasionally require. A large number of persons, especially in London, have not yet discovered the advantage of keeping a banker. They imagine that banks are merely places in which the opulent deposit their superfluous riches. The perusal of this

work will be sufficient to show that the advantages of banking are not confined to the wealthy.

8.—Application of General Principles.

A banker should always have general principles; that is, he should have fixed rules for the government of his bank. He should know beforehand whether he will or will not advance money on mortgage, or upon deeds, or upon bills of lading, or warrants; or whether he will discount bills based upon uncommercial transactions, or having more than three months to run. These are only a few of the cases in which a banker will find it useful to store his mind with general principles.

One advantage of this adoption of general principles is, that it saves time. If a banker can say, in reply to a customer, "It is contrary to the rules of our bank to advance money upon bills of lading," the reply is conclusive. But if he had not previously adopted any rule upon the subject, the reply would have taken up much more time. Another advantage is, that it gives decision of mind, and saves the banker from being "talked over" by any of his customers who may possess fluency of speech, or dexterity in debate. In this case, the banker whose mind is stored with general principles, though he may listen patiently to all his customer shall advance, will give the same reply which he would have given had the application been made in fewer words.

But although a banker ought to have a large stock of general principles—and this stock will increase as his experience increases—yet it may not be always wise to explain these principles to his customer. It is generally best, when a banker gives a refusal, to give no reasons for that refusal. Banking science is so little understood that the public generally are unable to appreciate its principles. Besides, a man who wants to borrow money can never be convinced by reasoning that his banker is right in refusing to lend it to him; nor, in fact, did the banker himself acquire his knowledge of banking by reasoning. He acquired it not by reasoning, but by experience; and he must not expect that his customers, who have had no experience, will, by reasoning alone, readily acquiesce in the banking principles he may propound to them. In most cases, therefore, he had better keep his reasons to himself.

But while we contend that every banker should have general principles, we do not say that in no possible case should he depart from them. But he should not look for such cases; they are rare, and when they do occur they will force themselves upon his attention. If under shelter of the truism, "All rules have their exceptions," he departs from his general principles whenever he finds it convenient or profitable to do so, he may as well have no general principles at all.

SECTION IV.

THE RELATION OF CAUSE AND EFFECT—PHYSICAL CAUSES.

THE Relation of Cause and Effect is a principle of extensive use in the art of reasoning. But as causes are of various kinds, we must consider them separately in different sections; and in this section we shall confine our attention to those causes that refer to material substances, and are consequently styled physical. We shall, in the subsequent sections, consider those causes that are moral, conditional, and final. We may observe, with regard to these four kinds of causes—physical, moral, conditional, and final—the first has reference to the physical sciences, as botany, physiology, geography, chemistry, &c.; the second has reference to the sciences of politics and political economy; the third has reference to jurisprudence and the affairs of ordinary life; the fourth has reference to ethics and theology. We do not mean an exclusive reference, but a general reference.

The first class of causes we call physical causes. To this class of causes we refer all those effects which are produced by the uniform and necessary operations of nature. Thus, it is an established law of nature that the earth should move round the sun, and that the moon should move round the earth. All the phenomena which result from the revolutions of the heavenly bodies are the result of natural causes. It is a law of nature that all bodies on the earth should tend towards the centre; and that different kinds of matter, whether fluid or solid, should have certain properties, and that some of them should have an affinity for each other. Hence, all reasonings connected with astronomy, mechanics, chemistry, and the other branches of experimental philosophy, are founded on natural causes. The reasonings founded on this class of causes amount to demonstration. The cause necessarily and invariably produces the effect.

1. There are four ways of reasoning in regard to these physical causes. First, from the existence of the cause, we

may infer the existence of the effect: if the sun has risen, we know it must be day; if the earth comes between the sun and the moon, the moon will be eclipsed; if a body, of less specific gravity than water, be thrown into water, we know it will float; if fire be applied to gunpowder, an explosion will take place; if the colours blue and yellow be mixed together, they will produce a green; if a man has had his head cut off, we may infer that he is dead. The second mode of reasoning is, from the existence of the effect to infer the existence of the cause. All theories or systems are founded upon this mode of reasoning. We observe the appearances of nature, and we endeavour to ascertain the causes which have produced them: if we see an abundant harvest, we may infer that the land is good. The third mode of reasoning is, from the non-existence of the cause to infer the non-existence of the effect: in the deserts of Arabia there is no rain, consequently there can be no vegetation. The fourth mode of reasoning is, from the non-existence of the effect to infer the non-existence of the cause: the streets are not wet, therefore it cannot have rained recently.

2. We are in danger of false reasoning when we ascribe effects to wrong causes.

Thus, for many ages, the appearances of the celestial bodies were ascribed to their motion round the earth; whereas it has since been demonstrated that these effects could not be produced by such a cause. The French philosopher, Des Cartes, imagined certain whirlpools in the atmosphere, by which he attempted to account for the appearances of nature. Thunder and lightning, earthquakes and volcanoes, are effects which have been ascribed to a variety of causes, according to the hypotheses of different philosophers; the flux and reflux of the tide, the origin of rivers, the phenomena of electricity, and many other appearances connected with natural philosophy, have furnished curious specimens of false reasoning in assigning causes.

Writers on metaphysics have also adopted theories calculated to weaken our confidence in the relation of physical

causes and effects. The most remarkable of these writers is Bishop Berkeley—"Since," he asks, "the mind does not perceive physical objects, but merely the images of those objects formed in the eye, how do you know that any such objects exist?" To this we may reply, that the representation formed in the eye, is the effect of the external objects, and is in itself a proof of their existence. When we look at an object through a telescope, we know that the object exists, though we see only the image formed by the speculum.

3. To prove the connexion between a physical cause and its effects is not the province of reasoning, but of observation and experiment.

During the middle ages, the scholastic logicians treated the physical sciences in the way we have intimated. Lord Bacon first advocated the necessity of a different course. Soon afterwards, the "Royal Society, for the Improvement of Natural Science," was established, and its transactions were very influential to leading to a more accurate mode of ascertaining the causes of natural phenomena.

"But it must not be forgotten how much is due to Lord Bacon, who died only thirty-six years before the incorporation of the Royal Society. With a comprehensive and commanding mind, patient in inquiry, subtile in discrimination, neither affecting novelty, nor idolising antiquity, Bacon formed, and in a great measure executed, his great work, on the *Instauration of the Sciences*, which being clearly connected in its main features with the Royal Society, connects itself with our inquiry. The design was divided into six capital divisions. The first proposes a general survey of human knowledge, and is executed in the admirable treatise, *The Advancement of Learning.* In this Lord Bacon critically examines the state of learning in its various branches at that period, observes and points out defects and errors, and then suggests proper means for supplying omissions and rectifying mistakes.

"The second, and the most considerable part, is the *Novum Organum*, in which the author, rejecting syllogism as a mere

instrument of disputation, and putting no trust in the hypothetical systems of ancient philosophy, recommends the more slow, but more satisfactory method of induction, which subjects natural objects to the test of observation and experience, and subdues nature by experiment and inquiry. It will be seen how rigidly the early Fellows of the Royal Society followed Bacon's advice."

In the year 1662 the Royal Society obtained a charter of incorporation from Charles II. The following is an extract from the preamble:—

"And whereas we are well informed, that a competent number of persons, of eminent learning, ingenuity, and honour, concording in their inclinations and studies towards this employment, have for some time accustomed themselves to meet weekly, and orderly, to confer about *the hidden causes of things*, with a design to establish certain, and correct uncertain theories in philosophy, and, by their labours in the disquisition of nature, to prove themselves real benefactors to mankind; and that they have already made a considerable progress by divers useful and remarkable discoveries, inventions, and experiments in the improvement of mathematics, mechanics, astronomy, navigation, physic, and chemistry; we have determined to grant our Royal favour, patronage, and all due encouragement to this illustrious assembly, and so beneficial and laudable an enterprise."—*History of the Royal Society, by C. R. Weld.*

4. The sciences of medicine, politics, and political economy, are partly physical, partly moral. You maintain your health by wholesome diet, pure air, early rising, occupation, and exercise. These are physical causes. It is also maintained by the discipline of the mind, and the government of the passions. These are moral causes.

Under the head of *physical* causes and effects we include those which refer to living animals. Our knowledge here is derived from observation. But still there is much room for reasoning. We may inflate a balloon with certainty whenever we please, but we cannot with equal certainty fatten an ox. There is an art in this. Some kinds of cattle will fatten

sooner than others, and some kinds of food will produce fat sooner than others. To ascertain the cheapest and best modes of fattening, we must have recourse to experiments. The results of such experiments are exhibited at the agricultural shows. We sometimes read in the public papers complaints against the excessive fattening of cattle, inasmuch as these cattle become unfit for food. We think these complaints have no solid foundation. The cattle are not fattened for food; they are fattened to teach the art of fattening: and whether these few cattle thus fattened to excess should be eaten or not, is a matter of little importance, as compared with the practical knowledge which by this means the agriculturist may be able to obtain.

The human body is an animal; but, from its union to mind, it is less than other animals under the control of physical agencies. We cannot fatten a man with as much certainty as we can fatten an ox. A tradesman on the verge of bankruptcy, a lady languishing with a broken heart, would, from anxiety of mind, baffle all attempts to make them fat. But when the mind is unoccupied, the body will yield to physical treatment. Pugilists and pedestrians undergo a course of training previous to their performances. By a regular course of diet and exercise, strength and agility are greatly increased.

The science of medicine is founded on experiments. What effect any substance taken into the stomach would produce generally upon the body could only be known at first by making the trial. But in the use of new medicines, and in the application of medicines generally to different constitutions, there is much need of sound reasoning. But after all, the result is the only test of medical skill. The surest proof of good treatment is the recovery of the patient.

The following illustrations of this principle of reasoning are taken from the author's writings on Banking:—

1.—Physical Causes in Banking.

"We are authorized to announce that J. W. Gilbart, Esq., F.R.S., will present the sum of One Hundred Pounds to the author of the best

Essay which shall be written in reply to the following question:—'In what way can any of the articles collected at the Industrial Exhibition of 1851 be rendered especially serviceable to the interests of Practical Banking?' *These articles may be* architectural models that may suggest improvements in the bank-house or office—inventions by which light, heat, and ventilation may be secured, so as to promote the health and comfort of the bank-clerks—discoveries in the fine arts by which the interior of a bank may be decorated, or the bank furniture rendered more commodious—improvements in writing-paper, pens, ink, account-books, scales, letter-copying machines, or other instruments used in carrying on the business—improvements in printing and engraving, by which banks may get their notes, receipts, letters of credit, and other documents of a better kind at a less expense, or so as to prevent forgery —new inventions in the construction of locks, cash-boxes, and safes, which shall render property more secure against fire or thieves—and generally all articles of every kind which can be so applied as to improve, cheapen, or facilitate any of the practical operations of banking."—*Bankers' Magazine for January*, 1851.

It was highly gratifying to the members of the Banking Institute, that so much scientific knowledge, bearing upon their profession, should be brought before them for their instruction. Last session they had the character and construction of locks introduced to their notice, and a very interesting and useful discussion took place as to their security. Now they had expounded to them the principles of a certain branch of chemistry, with which it was necessary they should make themselves acquainted, as, when brought to bear upon the ordinary transaction of the banking community, it had a peculiar and important influence. It would be almost impossible to over-estimate the importance and satisfaction of knowing that cheques and bills of exchange could not be forged if proper inks and paper were employed. But there was another species of forgery, and that was by taking out a number and putting in another for a larger sum. All he could recommend them to do, under the circumstances, was to guard themselves against the application of science in that way, which they could only do by acquiring information themselves as to its operation. They had been told that the use of coloured paper for cheques would tend to render the task of obliteration more difficult, as in the attempt the colour of the paper would be destroyed. That was an important fact, and he trusted that many of the gentlemen present would not forget to make known the circumstance, so as to lead to a more general adoption of such paper. The necessity had become strong for gentlemen engaged in banking pursuits to make themselves acquainted with the discoveries of science, so as to protect themselves from the acts of men who employed the improvement of science in defrauding them. He was afraid that, in the march of civilization, every discovery in science

might be taken advantage of by wicked men for the purposes of fraud. Then what they must do was to keep pace with science, and so to make science defend them from the attacks of science.

2.—The Bank Building.

The proper situation of a bank is a matter of some importance. It should be situated in what is deemed the most respectable part of the town. If it be placed in an inferior locality, approachable only by narrow and disagreeable streets, and surrounded by buildings the seats of smoky and dirty trades, it is not likely to be so much frequented, nor to acquire so large a business, as though it were more pleasantly situated. Another point to be observed is, that the bank itself should be a handsome building. The necessary expenditure for this purpose is no sin against economy. It is an outlay of capital to be repaid by the profits of the business that will thus be acquired. A portion of the building will probably be set apart for the private residence of the manager, or of some other officer of the establishment. It is desirable that this portion should be entirely separated from the office. The communication should be only by a single door, of which the manager should keep the key. The building should be so constructed that what is going on in the private house, whether in the kitchen, or the nursery, or the drawing-room, should not be heard in the bank. The office being thus isolated, must then be fitted up in the way that will most effectually promote the end in view. And here are three points to be considered—*space, light,* and *ventilation.*

A chief consideration is *space.* A banker should take care that his clerks have room enough to do their work comfortably. Every accountant knows that he can often work faster if he can have two or more books open at the same time; but if his space is so confined that he must shut up one book, and put it away, before he can use another, he will get on more slowly. The cashiers, too, will be much impeded if they are obliged to stand too close to each other; and the public will be huddled together, and will often count incorrectly the money given to them, and thus take up the cashiers' time to put them right. Want of space will necessarily occasion errors, from the confusion it produces, and from one clerk being liable to interruption from the noise or vicinity of the others. A banker should therefore take care that his office is large enough for his business; and that it will admit of being enlarged in case his business should increase. Ample space is also conducive to the health of the clerks, as there will be more air to breathe, and the atmosphere is less likely to become polluted by the burning of lamps and candles.

Another consideration is *light.* It is well known in every London bank, that fewer mistakes are made by the clerks in summer than in winter. Abundance of light prevents mistakes, and saves all the time

that would be employed in the discovery of errors. Light is also of great importance to the cashiers in detecting forged signatures and bad or counterfeit money. Thieves are also less likely to attempt their robberies in a light office than in a dark one. Faint or illegible handwriting can be more easily read, and hence mistakes are less likely to occur. The clerks, too, perform their duties with more quickness and cheerfulness. The gloominess of an office throws a gloom over the mind; but "light is sweet, and a pleasant thing it is for the eyes to behold the sun."

The lightest part of the office should be devoted to the clerks. We have observed sometimes a violation of this principle. The entrance-door has been placed in the middle of the front, with a window on each side, and the counter thrown across the room, so that the lightest part of the office has been given to the public. It is better that the entrance be placed at the right or the left corner, and the counter be made to run from the window to the opposite wall. The light will thus fall lengthways on the counter, and the space behind the counter will be occupied by the clerks.

Ventilation.—Volumes have been written by medical men upon the advantages of fresh air, and on the unwholesome atmosphere of crowded cities. If the air that circulates in the streets of towns and cities is impure, what must be the state of those offices or rooms where twenty or thirty persons are breathing close together during the whole of the day, and gas-lights are burning during the evening! In such cases we are told that a person afflicted with consumption of the lungs may communicate the complaint to others, as they must inhale a portion of the atmosphere which he has breathed out. The air in a close office is not only rendered impure by the number of people that breathe it, and by the burning of gas, but it also contains very frequently particles of dust arising from the floor, through the number of people constantly walking in and out. It is almost impossible for persons so circumstanced to enjoy for a length of time even moderate health. A portion of this evil may be mitigated by a good system of ventilation. To obtain this should be regarded as an object of the first importance. If a banker does not insist upon the architect performing this in the most effectual manner, he must be content to be often put to inconvenience through the illness and consequent absence of his clerks.

3.—Arrangements of the Office.

It is desirable at all times to make those arrangements that shall best promote the convenience of the public.

The counter should be readily accessible, and of sufficient length to meet the requirements of the business; and the cashiers' desks sufficiently wide apart for the public to be promptly served, and to stand without jostling one another. Some banks have two counters, one for

paying, and the other for receiving. At other banks the cashier does not enter the credits, but merely agrees the amount with the customer, and then passes them to a clerk, who enters them in the Waste Book. In the same way, when a cheque is presented for payment, he gives it to a clerk behind him, who enters it, and hands the notes to the cashier, who pays out the gold and silver. When the business is large, extra or supernumerary cashiers are appointed, who take the place of the regular cashiers when they are absent at dinner or otherwise, so that during the whole of the day all the cashiers' desks are occupied. To relieve the counter, the payment of bills that have been presented in the morning and not paid, is usually received at a separate desk or office. All these are expedients that should be adopted when necessary, to save the time of the public. There are few things that try a man's temper more than to be kept waiting a long time at a banker's counter; and he will be very apt to give vent to his impatience by quarrelling with the clerks, or reproaching the establishment.

Another object is, to place near together those clerks whose duties will require them to have frequent communication with each other. If this rule be not observed, the clerks will lose much time in the course of the day in passing from one part of the office to the other; and the work will not be so expeditiously performed. It is especially desirable that the ledger-keepers should be placed close behind the cashiers; so that if a doubtful cheque be presented for payment, the cashier may be able to show it to the ledger-keeper, and be informed if he may pay it, without being observed by the party presenting it.

Another point is, to place the desk of the chief or head clerk in such a position that he can see all over the office. "A master's eye will do more work than both his hands." In this case, if the counter is crowded, the chief clerk will perceive it, and appoint additional clerks to assist the cashiers. If disputes take place between the clerks, or between the cashiers and the public, he will come forward and settle the matter before the dispute is carried to high words. He will observe, too, the customers who come frequently to the counter, and from their transactions he will often draw conclusions respecting their circumstances which will be serviceable to the bank. It is generally best that many of the clerks should be so placed as to look towards the counter. It has been said that this draws off their attention from their work; but we do not think this is generally the case, although it may occasionally relieve the irksomeness of their duties. A dishonest person standing at the counter, and watching an opportunity of committing a robbery when the cashier is engaged, will be more likely to abstain from making the attempt when the eyes of other clerks have a command of the counter. This arrangement will depend in some measure on the direction of the light. The clerks should not have their faces or their backs towards the window, but the light should fall on them sideways.

These matters may appear trifling, but they will not be deemed unimportant to those who are entrusted with the practical administration of an office. It is only by attention to minute things that the business of an office can be well conducted.

4.—Banking Book-keeping.

When a young man enters a bank as a clerk, he should be instructed to be careful with regard to his handwriting, or, in his anxiety to write fast, he may forget to write well. If he write a bad hand, he should not be above taking a few lessons from a professor of penmanship, who will teach him to write fast and well at the same time. But, however badly he may write, he should try to write plain. Plainness is of more consequence than neatness or elegance. He should be very careful in writing the names of the customers of the bank. If he write them illegibly, there will be a loss of time in making them out, or they may be misunderstood, so that money may be posted to the wrong account, and thereby loss arise to the bank. On this account also, when two or more customers have the same surname, he should be very careful to write the Christian names fully and distinctly.

The necessity for writing quickly, and the want of carefulness at first, are the causes why so few bankers' clerks, comparatively, write a good hand. But they should remember, that this is a most important qualification, and a deficiency in this respect may be an insuperable bar to promotion. Without this attainment a clerk cannot be put to write up the customers' books, nor to make out the country accounts, nor to write the letters, nor to fill the office of secretary. "You ought to be careful to write a plain hand. You impose upon your correspondents a very unnecessary and a very unpleasant tax if you require them to go over your letters two or three times in order to decipher your writing. A business hand is equally opposed to a very fine hand. A letter written in fine elegant writing, adorned with a variety of flourishes, will give your correspondent no very high opinion of you as a man of business."*

The plan of writing-masters who advertise to teach good and expeditious writing in a few lessons is as follows:—The pupil rests his hand upon the paper without touching it with his little finger. All the motion is then made from the wrist. Those who have to write their names many times in succession, such as in signing bank notes or in accepting bills, will find that on this plan they can get through their work in much less time than if they bend their fingers with every stroke of the pen.

The young clerk should also be taught to make his figures clear and plain, so that a 2 cannot be mistaken for a 3, nor a 3 for a 5. He should

* 'Lectures on the History and Principles of Ancient Commerce,' by J. W. Gilbart.

also take care that the tail of his 7 or his 9 does not run into the line below, and thus turn a 0 into a 6, and also that the top of his 4 does not reach so high as to turn a 0 in the line above it into a 9. He should be careful, too, in putting his figures under one another, so that the units shall be under the units, the tens under the tens, the hundreds under the hundreds, and the thousands under the thousands. Otherwise, when he adds up the columns together he will be in danger of making a "wrong cast."

He will also learn to use both hands at the same time. In counting gold or silver coin, he will count with two hands instead of one, and thus do double the work. In *entering* a number of cheques or bills, while he holds the pen in one hand he will hold a cheque in the other, and then turn over the cheques as quickly as he enters them. He will always turn them over one on the back of the other, so that they will be in the same order after he has entered them as before, and when they are "called over" they will come in the same order in which they are entered.

He must also learn to "cast" quickly and accurately. The two main qualifications in this operation are accuracy and quickness. To insure accuracy a clerk will *cast* everything twice over. The first time he will begin at the bottom of the column, and the second time at the top. If he begin both times at the bottom of the column, the association of figures will be the same; and if he has fallen into an error the first time, he will be apt to fall into the same error the second time. But if he changes the order, the association of the figures will be different, and he will not be likely to fall into the same error. Quickness can be acquired only by practice. But he will accelerate his speed by making his figures plain, and placing them strictly in a line under one another. He should also learn to cast without speaking, for the eye and the head will go faster than the lips.

He must also be taught to "call over." When he first comes into the bank he will call this sum, 315*l.* 10*s.* 6*d.*, three *hundred and* fifteen *pounds* ten *shillings and* six *pence*, but he will soon learn that more than half these words may be suppressed, and he will say, three, fifteen, ten, six. And so in the larger amount, 4,785*l.* 13*s.* 4*d.*, instead of saying four *thousand* seven *hundred and* eighty-five *pounds* thirteen *shillings and* four *pence*, he will call, forty-seven, eighty-five, thirteen, four. By proceeding in this way, and speaking quickly and yet distinctly, a column of figures may be called over and checked in a very short space of time. He will, however, take care to avoid ambiguity. Thus, if the sum be 40*l.* 5*s.* 6*d.*, he will not say, forty, five, six, as that would mean forty-five pounds six shillings; but he will say, in this case, forty *pounds*, five and six. In cases where the pounds consist of five figures, the first two denoting the thousands are expressed separately; thus 25,347*l.* 8*s.* 6*d.* is called over twenty-five, three, forty-seven, eight, six; and six figures,

say 468,379*l.* 8*s.* 6*d.*, is called over, four sixty-eight, three seventy-nine, eight, six.

He will also be taught to *balance;* that is, to find the difference between two sums by *addition,* instead of subtraction. Thus, if the two sums be 1,347*l.* 16*s.* 3*d.* and 4,834*l.* 19*s.* 8*d.* he will be apt at first to put one under the other and subtract, in this way—

	£4,834	19	8
	1,347	16	3
Difference . . .	£3,487	3	5

But he must be taught to proceed by a mental process, and will add the difference to the smaller number thus—

	£1,347	16	3	—	£4,834	19	8
Difference . . .	3,487	3	5				
	£4,834	19	8				

He performs this operation by beginning with the pence, saying, or rather *thinking,* "three and five make eight," and so on. And thus the two sides of an account are made to balance; that is, both sides are of the same amount.

The principle of balancing pervades the whole system of book-keeping. For example, we know that if to the amount of cash in the bank last night we add the amount received to-day, and deduct the amount paid to-day, the remainder will show the amount on hand to-night; and a novice would very naturally put it down in this form—

	£
Cash on hand last night . . .	100,000
Received to-day	60,000
	160,000
Paid to-day	80,000
Cash on hand to-night . . .	£80,000

But an accountant would arrange these four items in such a way as to form a balance, thus—

	£		£
Cash paid away to-day .	80,000	Cash on hand last night .	100,000
Cash on hand to-night .	80,000	Cash received to-day . .	60,000
	£160,000	Balance . . .	£160,000

5.—Forgeries.

In the discount of bills it is necessary to guard against forgeries. It has happened, that parties carrying on a great business in London have presented to their banker, for discount, bills drawn upon all parts of the country; which bills, upon inquiry, have turned out to be purely fictitious. This is an additional reason for bankers making inquiry about the accepters of the bills they discount, even when they think they have reason to be satisfied with the drawers. Even this is no protection against forgery. Sometimes the name of a most respectable house in a provincial town has been forged. Where the amount is large, therefore, it seems advisable to send the bill down to some banker in the town, and ask his opinion as to the genuineness of the signature. Of course in these, and many other cases in which a banker is liable to be cheated, much must depend upon personal discretion; no rules can be given for all cases.

To facilitate the detection of forged cheques, it is advisable that the banker should have a printed number placed on every cheque, in every cheque-book, and keep a record of the name of the customer to whom each book is given. When a cheque with a forged signature appears, the banker can then turn to this registry, and see to which of his customers he had given out this cheque. This plan has been found useful in tracing forgeries that have been perpetrated by the clerks or servants of the party keeping the account. Some bankers, moreover, place on their cheque-books a printed label, requesting the customer will at all times keep the book under his own lock and key.

To guard against forgery in the case of deeds or bonds, all these documents should be witnessed by an officer of the bank. And when a letter of guarantee is given by a third party, it should not be taken by the banker from the party in whose favour it is given, but the letter should be signed at the bank, and the signature witnessed by one of the clerks.

A banker is also liable to loss from the alteration of cheques. The words six, seven, eight, and nine, can easily be changed by the addition of y, or ty, into sixty, seventy, eighty, or ninety. Sometimes, too, when cheques are drawn for less than 10*l.*, if a space be left open before the word, another word may be introduced. Thus, a short time ago a cheque was drawn on a banker for 3*l.*, and the party who obtained it wrote the word sixty before the word three, and thus cheated the banker out of 60*l.* Letters of credit, as well as cheques, have heretofore been altered, by the original sum being taken out, and a larger sum being substituted. This is now prevented by staining the paper with a chemical preparation. Country banks also stamp upon their drafts the words "under ten pounds," "under twenty pounds," and so on, to prevent an alteration to any sum beyond those amounts.

6.—Causes of Fluctuation in the Circulation of Bank Notes.

As notes are issued in Ireland chiefly for the purpose of purchasing agricultural produce, it would seem to follow that the amount of notes put into circulation will be regulated mainly by the quantity of that produce, and by the price at which it is purchased. If, then, we find that, in the years since 1845, the quantity of agricultural produce has been less, or the price at which it has been sold has been less, and especially if both these circumstances should have occurred, then have we an adequate cause for a reduction in the amount of bank notes in circulation.

We may also observe, that a bad harvest in one year may, by the distress it produces, cause a less production of commodities in several following years, and hence there may be a less demand for bank notes.

A bad harvest produces distress among the farmers, and this distress affects the amount of the circulation in two ways:—First, the farmer consumes his own produce instead of selling it, and thus requires not the use of notes. If his potatoes are destroyed, he will consume his grain. In the Provincial Bank Report of 1846, it is stated that, although the crop of oats was productive and good, a larger portion than usual of the year's crop was believed to be retained for consumption in Ireland in consequence of the apprehended deficiency in the supply of potatoes. Secondly, the distress of the farmer diminishes the instruments of reproduction. If he has no potatoes he can rear no pigs. An abundant crop of potatoes produces in the following year an abundant crop of pigs, but a famine of potatoes will be followed by a famine of pigs; and hence the distress of one year may have the effect upon the circulation of notes in several succeeding years.

After the failure of the potato in 1846 the exportation of swine was reduced from 480,827 in 1846, to 106,407 in 1847. The potato crop again failed in 1848. The number of swine exported in 1848 was 110,787; in 1849 it was only 68,053.

The destruction of the pigs which took place in 1846 would doubtless affect the circulation of notes in subsequent years, especially in 1847, 1848, and 1849, and probably, also, to a certain extent, in the years 1850 and 1851.

But pigs can be reproduced more rapidly than cattle, as they are more fruitful, and sooner reach maturity. The seasons of famine caused the exportation of cattle in order to obtain food, and thus the means of reproduction in future years were destroyed to a more serious extent.

7.—The Health of Clerks.

A clerk should take care of his own health. We think it is better for him to stand than to sit at his work. His desk should be raised to such a height that he can do this without stooping. He should at all times avoid pressing his chest against the edge of the desk, as that may

produce serious complaints. The post most friendly to health is that of cashier. He is generally standing; his attention and mental faculties are in more constant activity, and he is obliged to talk, which is useful to the lungs. It may be doubted whether the exercise of the intellectual faculties, when not carried to excess nor attended with anxiety, is ever injurious to health. Those mental operations which are connected with the office of a bank clerk are in themselves beneficial. It is the confinement, the impure air, and the keeping of the body too long in one posture, that affects the health. Hence, clerks should live at a distance from the bank, and *walk* to and fro. If they reside at the bank, they should take exercise in the open air, either in the morning or the evening. When the weather is bad, they can walk up and down the room, with the windows open. Any kind of amusement that should throw the body into a variety of attitudes, would be useful. Singing is friendly to health, if not carried to excess, nor practised in confined or crowded apartments. Boating, in moderation, is serviceable. Gardening is highly beneficial. A clerk who wishes to enjoy good health should never keep late hours, nor get into debt, nor gamble in the funds. He should also have a hobby, that is, some kind of fixed amusement to employ his time when absent from the bank, in order to change the current of his thoughts and to counteract those evils that sometimes arise from a monotony of occupation. If this hobby should be of a kind to be useful or instructive as well as recreative, all the better. The great disease against which he should guard is consumption. He will be more subject to this in youth than in more advanced age. And it has been remarked that healthy young men, fresh from the country, when appointed clerks, have become more susceptible of consumption than less robust persons who have been seasoned by a residence in London.

It is desirable, on several accounts, that all the officers of a bank, and especially those who are entrusted with cash or other property, should once a year have leave of absence for at least a week or a fortnight. This should not even be optional—it ought to be a fixed rule with which they should be expected to comply. These absences should be arranged to take place at those seasons of the year when they will be of the least inconvenience to the business of the bank. These holidays ought to be readily granted on the ground of kindness and humanity; but where these feelings do not exist, motives of self-interest alone would prompt a ready acquiescence in such applications. In the first place, a great inconvenience is often experienced in large establishments from the illness of the clerks when they are denied proper seasons of relaxation. In this case, the loss of time from ill health is greater than that which would be occasioned by holidays. A sick clerk, even when he attends to his duties, is neither so quick, nor so correct, nor can he

get through so much work, as a clerk who, by proper recreation, has been kept in perfect health.

8.—The Health of a Banker.

We will observe, lastly, that, in a season of pressure, it is peculiarly necessary that a banker should pay regard to the state of his own health, and to the discipline of his own mind, so as to guard against any morbid or gloomy apprehensions with regard to the future. He should attempt to form a cool and dispassionate judgment as to the result of passing events; endeavouring so to arrange his own affairs as to be prepared for whatever may occur, but taking care not to increase the present evil by predicting greater calamities. If he suffer a feeling of despondency to get the mastery of his mind, he will be less able to cope with the difficulties of his position. He will then, probably, refuse reasonable assistance to even first-rate customers, realise securities unnecessarily at a heavy sacrifice, and keep in his till an amount of unemployed treasure excessively disproportionate to the extent of his liabilities. This will increase the pressure. Fear, too, is always contagious. A banker of this melancholy temperament will impart his apprehensions to others, and thus the panic will become more widely extended.

SECTION V.

THE RELATION OF CAUSE AND EFFECT—MORAL CAUSES.

While physical causes refer to the operations of matter, moral causes refer to the operations of mind. The former relate to the sciences of chemistry, geology, astronomy, and other physical sciences. The latter relate to moral philosophy, political economy, and those other sciences that relate to the acts and habits of intelligent beings. We trace the operations of these cases, with reference to individuals, families, and nations.

1. With regard to moral causes, we may adopt the following modes of reasoning.

First. From the existence of the cause we may infer the existence of the effect. Thus, if a man be industrious, we may infer that he will get rich. If a man be given to intoxication, we may infer that he will reduce himself to beggary

If a man exercise his intellectual faculties, we know he will improve them.

Secondly. From the existence of the effect we may infer the existence of the cause. Thus, if a servant enjoy in a high degree the confidence of his master, we may infer that he has served him well. If a man be involved in debts which he is unable to pay, we may infer that he has been either imprudent or unfortunate.

Thirdly. From the non-existence of the cause, we may infer the non-existence of the effect. Thus, if a man has not been unfortunate nor improvident, we may argue that he cannot be poor.

Fourthly. From the non-existence of the effect we may infer the non-existence of the cause. Thus, we may say, such a person is not poor; he cannot then have been extravagant. Such a person is not an intelligent man; he cannot, then, have spent much time in reading and study. He does not speak correctly; therefore he cannot have learned grammar. On one occasion when speaking to the working classes Rowland Hill observed,—"I don't think much of that man's religion who is without his Sunday coat, when a good Providence gives him plenty of work."

2. In the relation of moral causes and effects, we have, generally, in the first instance, to prove by reasoning that such a relation exists.

If, for instance, I contend that education produces good morals, and hence, ask my neighbours to assist me in establishing a school for the poor,—I may be asked to prove, in the first instance, that education does produce good morals; for, unless I can prove the relation of cause and effect in this case, my efforts will be unavailing. So in many of the acts of ordinary life, and in nearly all our public proceedings, whether a certain cause will produce a certain effect is, in fact, the whole question in dispute.

3. Sometimes it is matter of dispute, when two circumstances sustain the relation of cause and effect, *which is the cause and which is the effect.*

Heretofore the landlords have been accused of keeping up

the price of corn, by demanding high rents: but Dr. Chalmers observes that there is no sounder principle in political economy than that the high prices of corn are not the *effect*, but the *cause* of high rents. The country bankers were accused of causing a general rise in prices by an excessive issue of their notes; but they stated, in reply, that it was not the increased issue of notes that caused the high prices, but the high prices called out the notes.

4. In investigating the relation of cause and effect, it is sometimes advisable not to stop at the immediate causes, but to go further back, and ascertain *what are the original causes of that immediate cause.* It has been disputed whether the price of food has any influence on the rate of wages. It has been answered, No; for the rate of wages is regulated by the proportion between the demand for labour and the supply. Admitting the latter opinion to be correct, it does not refute the former: for the demand and the supply of labour are influenced by anterior causes, and the price of food may be one of those anterior causes. So, we are told that the rate of interest is regulated by the proportion that may exist between the demand and the supply of capital. This throws but little light upon the matter, unless we are told at the same time what are the anterior causes that regulate this demand and this supply.

5. In reasoning upon moral causes, we are exposed to much difficulty from the circumstance, that *one effect is often produced by a variety of causes.*

The greatest sophistry arises from imputing to one particular cause an effect which results from the joint operation of many causes. Thus, the ruin of an individual may be the consequence of the accidental burning of his house: of imprudent conduct; of the treachery of friends, and of robbery by thieves. The fall of a state may be the effect of the united operation of a tyrannical government, a seditious people, the encroachments of a foreign enemy, and pestilence and famine. Now, should a person take the effect, and argue that it was produced solely by one cause, he would be in error.

6. We shall also fall into error if we deny the existence

of any one cause, because *other causes contributed to produce the effect.*

Thus, it has been contended that Sir Robert Peel's Act for Regulating the Currency, passed in the year 1844, was a cause of the commercial distress that occurred in the year 1847. In reply, it was contended, that the distress of 1847 was produced by the famine in Ireland and the speculations in railways. Now this is no refutation of the former opinion; for all the three causes may have united in producing the same effect.

If the effect may have been produced by several causes, and we can prove *the absence of all the causes except one,* this fixes the effect upon that one cause. We take the following extract from the Report of the General Board of Health on the Supply of Water to the Metropolis:—

"With respect to this case of Rotherhithe, the fact of the people in the first street mentioned having been the first victims in the great outbreak, shows that they must have been highly predisposed; and as they lived in decent houses, and were in comfortable circumstances, *two of the more ordinary causes of the disease*—overcrowding and poverty —*could not have operated.* Those considerations can leave no doubt *that the one main cause* of the great severity of the attack was the use for domestic purposes of polluted Thames water."

7. We should also fall into error were we to infer, that of two events one is the cause of the other, merely *because it occurred first in the order of time.*

This fallacy is often ridiculed by a reference to the building of Tenterden steeple being the cause of the Goodwin sands. The story is told, I believe, by Bishop Latimer. There was a time when the Goodwin sands, which lie in the neighbourhood of Dover, did not exist. Sometime after they had collected, Government commissioners were appointed to ascertain the cause. They accordingly proceeded to the spot to examine witnesses. Among others, an old man assured them that the cause of the Goodwin sands was the building of the Tenterden steeple. They asked him how this could be. He stated, he could not tell how, but he knew it was so; for he recollected that when there was no steeple there were

no sands, but soon after the building of the steeple in came the sands. He, therefore, inferred that the building of the steeple was the cause of the sands.

In order to prove that two events sustain the relation to each other of cause and effect, it is necessary to show, first, that *the two events did actually occur;* secondly, that the event which we call the cause, occurred *in the order of time before the effect;* and, thirdly, that there was *an adaptation in the cause to produce the effect.* In refutation we may state, that one or both of the two events did not occur—or that they did not occur in the order of time—or that there was no adaptation in the one to produce the other. We may go further, and maintain that the alleged cause, so far from being the cause, was *an obstruction to the effect.* The words, "in spite of," are sometimes used on such occasions. "Gentlemen, I contend that trade did not prosper *in consequence of* protection, but that it prospered *in spite of* protection."

Public measures are usually approved or condemned on account of the effects they are alleged to produce. Here is a wide field for controversy. The affairs of a nation are so multifarious, so many causes are perpetually at work, that it is difficult to trace with certainty the precise effects of any one cause. Even after measures have become law, and we have had some experience of their operation, the same difference of opinion is still maintained. If a measure already adopted is applauded on account of the good effect it has produced, we may contend in opposition to this, that the event, called the effect, has not taken place—or admit that the event has taken place, but was not the effect of that cause. Or, we may go further, and admit that the event was the effect of the cause, but that the effect was a bad effect. Or, we may go still further, and admit that the effect was a good effect, and then contend that the same cause produced other effects of a different character, so that the bad consequences more than counterbalanced the good ones.

8. In reasoning upon moral causes and effects we should inquire whether *at all times* and under *all circumstances* the same causes *will produce precisely the same effects.*

We often meet with cases of this kind in the consideration of historical and international questions. Thus, it is said the Woollen Manufacture in England, and the Linen Manufacture in Ireland, prospered in consequence of protective laws, and *therefore* the same laws would cause increased prosperity at the present time. The Navigation Laws were useful to England at the time of Oliver Cromwell, *therefore* they would be useful still. A few years ago it was contended that Joint-Stock Banks were adapted only for countries having little capital, such as Ireland and as Scotland when they were first established there, but were quite unsuitable for a wealthy country like England. The same argument is now employed against the introduction of "Partnerships en Commandite," such as exist in France and America.

9. If it be a matter of dispute whether two events sustain the relation of cause and effect, we may be able to solve the difficulty if it is found that *the removal of the supposed cause is followed by the removal of the supposed effect.*

"There was the case of a man who lived in the Coburg-road, in Camberwell parish, in a semi-detached house, in a healthy situation, and with a garden behind the premises; his wife had noticed that the water supplied to them was exceedingly bad, and, having been informed that it was likely to affect the health of her family, she invariably boiled and filtered it: all kept in perfect health except the father, who objected to drink this water, from its being flat and unaërated; he would still drink it as it came from the water-butt, and the consequence was that he was attacked with choleraic-diarrhœa: *he afterwards drank no more of it, and got well.*"—*Report of the Board of Health.*

Thus, it was disputed whether the Act of 1844 for regulating the currency was the cause of the monetary pressure of 1847; but it was found that *when the Act was suspended in October*, 1847, *the pressure immediately ceased.* A writer on this subject observes—"It has been denied that this pressure was produced or increased by the Act. But how stand the facts? The Act was passed, and, as predicted, a pressure came—the Act was continued, and the pressure increased—the Act was suspended, and the pressure went away. These are not opinions—they are facts."

10. We sometimes attempt to refute a doctrine by tracing the absurd consequences that must result from it. This is called by scholastic logicians *a reductio ad absurdum*—you reduce it to an absurdity.

It is not necessary, however, in this mode of reasoning, that the deduction should be *absurd*, in the ordinary sense of the word. It is sufficient if it shows the unsoundness of the sentiment from which it is fairly inferred.

To prove the utility of money, show the evils that would arise from its abolition.

"What a useful thing is money! If there was no such thing as money, we should be much at a loss to get anything we might want. The shoemaker, for instance, who might want bread, and meat, and beer, for his family, would have nothing to give in exchange but shoes. He must go to the baker, and offer him a pair of shoes for as much bread as they were worth: and he must do the same thing if he went to the butcher for meat, or to the brewer for beer."—*Easy Lessons on Money Matters.*

Sometimes we meet with zealous advocates, who reduce their own principles to an absurdity *by deducing from them extravagant conclusions.* Dr. Chalmers adopted the Malthusian theory of population, and drew from it such startling, and yet apparently legitimate conclusions, that his readers were led to doubt the soundness of the theory. They judged of the tree by its fruits.

If an absurd conclusion can be legitimately deduced from any general principle, *it is a sufficient proof that the principle is unsound;* but in this case we should carefully investigate the logical accuracy of the deduction, for weak or zealous advocates will sometimes make extravagant deductions from even sound principles.

Akin to the reduction *ad absurdum* is an exposure of the fallacy called "proving too much." This fallacy is an argument that, if admitted to prove the point in dispute, would *if carried out* to all its legitimate consequences, also *prove other points that neither of the disputants admit to be true.*

The following illustrations of this principle of reasoning are taken from the author's writings on banking:—

1.—Effects of a Large Paid-up Capital.

The payment of a certain portion of the capital before the commencement of business, is a pledge that the project is not a mere bubble, and this is especially necessary when the proprietors have no farther liability. But even with unlimited liability a certain amount appears to be necessary. The employment of capital judiciously is sometimes a means of acquiring business; and in case of loss there should always be a sufficient capital to fall back upon without recurring to the shareholders.

There is an evil in a bank having too small a capital. In this case, the bank will be but a small bank; the number of proprietors will be few, and the number of persons eligible to be chosen directors will be few; hence there will not be the same guarantee for good management. If a bank with a small capital have also a very small business, it had much better cease as an independent establishment, and become the branch of a larger bank. If, on the other hand, it has a large business, with a large circulation, large deposits, and large loans or discounts, its losses will sometimes be large, and hence the whole capital may be swept away. It is true, that while it avoids losses the shareholders will receive large dividends, but these large profits had much better be left in the bank as an addition to its capital than shared among the proprietors in the form of dividends. There is danger too that the high premium on those shares may induce many shareholders to sell out and form other, and perhaps rival establishments.

The most effectual way of acquiring this self-dependence that we have been recommending, is to call up an adequate amount of capital. During a pressure, as we have already said, a banker has three additional claims on his funds. In the first place, a large amount of his deposits may be withdrawn. Secondly, many of his customers, and some probably of the wealthiest, will require additional assistance, in the way of loans and discounts. And, thirdly, he will think it prudent to keep a larger sum in his till, to meet contingent demands. On the other hand, the bills he holds will not all of them be regularly paid; the temporary loans he has granted will have to be renewed; and should he call up any of his permanent, or dead loans, it will resemble calling spirits from the deep. In this case he will find the benefit of a large capital; and it is only by means of a large capital that all these operations can be performed with comfort to himself and satisfaction to his customers.

2.—Effects of a Surplus Fund.

We consider it of high importance that a bank should maintain an ample surplus fund. Without such a fund, the dividends will fluctuate very widely, and sometimes there may be no dividend at all, even

though upon a series of years the bank may have been very successful. Even if it is known that a bank has met with losses, its credit is not so much affected when it has an ample reserved fund to fall back upon. And besides the ordinary losses in the way of business, a bank will sometimes, in a season of pressure, be called upon to sustain loss by the realization of securities, and it is very convenient to have a surplus fund sufficiently ample to bear all these contingencies. Such a fund too has a moral effect in strengthening the reputation of the bank in public estimation. It is regarded as an indication that its affairs are governed by a wise and prudent administration.

When urging the establishment of a surplus fund, we are met with the remark that we are not bound to do anything for posterity, inasmuch as posterity have done nothing for us. We recollect meeting with this joke many years ago, we think in "Joe Miller." As it is so frequently repeated, we presume it is thought to be witty. We profess not to be a judge of witticisms. As a piece of reasoning it seems very unsound. To deny ourselves present gratifications in order to make provision for the future, is one of the most important lessons that reason teaches to man. Nor is it for posterity, in the present case, that the provision is made. All bank proprietors should wish that it may be so; but it is very probable that within their own life-time some untoward events may occur that will require a portion of the reserved fund to keep up the ordinary dividend.

Those persons are under a mistake who object to a reserved or surplus fund on the ground that it takes away the profits from the existing shareholders, and gives them to the future shareholders. This is not the fact. An existing shareholder who keeps his shares until the fund is in some way distributed, receives of course his portion of the fund. But an existing shareholder who sells out his shares before the fund is distributed, receives the value of his portion of the fund in the price of his shares. The amount of the surplus fund will influence the market value of the shares. In proof of this, we may observe that after a bank has declared a bonus the market price of the shares usually falls, as in fact, *cæteris paribus*, it ought to do.

3.—Effects of a System of Branches.

When the law existed in England that no bank should have more than six partners, the branch system scarcely existed. In some cases, a bank had a branch or two a few miles distant, but no instance occurred of a bank extending itself throughout a country or a district. But with joint-stock banking arose the branch system—the head office was placed in the county town, and branches were opened in the principal towns and villages around. The credit of the bank being firmly established, its notes circulated freely throughout the whole district. The chief advantages of this system are the following:—

There is greater security to the public. The security of the whole bank is attached to the transactions of every branch; hence there is greater safety to the public than could be afforded by a number of separate private banks, or even so many independent joint-stock banks. These banks could have but a small number of partners—the paid-up capital and the private property of the partners must be comparatively small; hence the holder of a note issued by one of the independent joint-stock banks could have a claim only on that bank: but if that bank, instead of being independent, were a branch of a large establishment, the holder of a note would have the security of that large establishment; hence the branch system unites together a greater number of persons, and affords a more ample guarantee.

The branch system provides greater facilities for the transmission of money. The sending of money from one town to another is greatly facilitated, if a branch of the same bank be established in each of those towns, for all the branches grant letters of credit upon each other. Otherwise you have to ask the banker in the town from which the money is sent, to give you a bill upon London, which is transmitted by post; or you request him to advise his London agent to pay the money to the London agent of the banker who resides in the town to which the money is remitted. This takes up more time, and is attended with more expense. A facility of transmitting money between two places usually facilitates the trade between those places.

4.—Effects of Bills of Exchange.

Besides their utility as a means of transferring money from one place to another, bills have the following advantages:—

1. Bills are a means of transferring debts from one person to another. If I owe a man 100*l.* and another man owes me 100*l.*, I will draw a bill for that amount of my debtor and give it to my creditor. I have thus transferred the debt from my debtor to my creditor, and my own debt is liquidated. My debtor, instead of paying me the money he owed me, will pay it to the holder of the bill. My creditor will now look for payment to my debtor, and consider me simply as a guarantee for the payment of the bill. If he wishes to make use of the bill he will again transfer the debt to another party, placing his own name on the bill as an additional guarantee. The bill may thus pass through a variety of hands, and liquidate a great number of debts, before it becomes due. When due, it will be paid by the accepter, who was the original debtor, and all these intermediate transactions will be closed. Hence, in Lancashire, bills of exchange serve the purpose of a circulating medium, in the same way as bank notes. The only difference is, that in transferring a bank note you are not responsible for its ultimate payment; but in passing a bill of exchange you place your name on it as a guarantee. A bill of exchange, too, cannot always be passed for its

full amount; but you will have to pay a discount according to the time it has to run before it will fall due.

2. Bills fix the period for the payment of debts, and in case of litigation they afford an easy proof of the debt. A person will have little scruple in putting off a tradesman to whom he owes money, and the creditor dares not be urgent lest the debtor should no longer deal with him, hence the time of payment can never be calculated upon with certainty. But if the customer has given a bill for the amount he owes, that bill will circulate into the hands of other persons who will be more peremptory in demanding payment, and whose applications cannot be disregarded with impunity. Besides, if a man dishonour his acceptance, his character is stamped at once in the commercial world as being either very poor, very negligent, or very unprincipled, and at no future time will he be able to raise money upon the credit of his name. Hence many persons who are very tardy in paying a book debt, are very punctual in paying their bills. In case, too, a tradesman is under the necessity of bringing an action at law against his customer, he will have to prove the actual delivery of every article mentioned in his account. This, at a distance of time, is often difficult to do; but if a bill has been accepted for the amount, it is only necessary to prove that the acceptance is in the defendant's handwriting.

3. Bills enable a tradesman to carry on a more extensive business with the same amount of capital. If, by the custom of trade, a dealer give his customers three months' credit, he can, during that period, make no use of that portion of his capital which is invested in the commodities they have purchased; but if they accept his bills, drawn at three months after date, he can, if in good credit, get those bills discounted at the bank in his town, and then employ this money in the farther extension of his business. He will thus, while selling on credit, obtain nearly the same advantages as though he sold for ready money. Should he, instead of having these bills discounted, pay them to the manufacturer or wholesale-house of whom he makes his purchases, it will amount to nearly the same thing. The whole of his capital is thus kept in motion, and is not diminished by any amount of outstanding debts. To give credit without drawing bills requires that a tradesman should have a large capital. To give no credit will restrict his business. By means of bills he is enabled to give credit and to extend his business, without requiring any addition to his capital.

4. Bills afford an easy way of giving a guarantee. A person may wish to borrow money of me, and I may be unwilling to lend it to him unless he procure a more wealthy person to guarantee the repayment at a given time. If he has a friend that will do this, the most easy way of effecting the guarantee is by means of a bill drawn by the borrower upon his friend. This, in point of security, is the same thing as a letter of guarantee; but it has also this additional advantage, that if I should

want the money before the time fixed for its repayment, I can get this bill discounted and reimburse myself the money I have advanced. Bills of this description are called accommodation-bills, or wind-bills, or kites. When employed only as a means of affording occasional assistance to a needy friend, or for raising a sum of money for a short time, to meet an unexpected call, they do not appear to be very objectionable. But when systematically pursued for the purpose of raising a fictitious capital whereon to trade, they uniformly indicate the folly, and effect the ruin of all the parties concerned.

5. Bills are a means of transferring capital from one trade to another. Every branch of trade is liable to fluctuations from an alteration in the proportion between the demand and the supply, and hence capital is continually undergoing a transfer from the production of those articles for which there is a less demand, to the production of those articles for which there is a greater demand. But in what way is this transfer effected? Is it by a manufacturer leaving one employment for another? No. The manufacturer in the declining trade will reduce his capital, while the manufacturer in the prosperous trade will augment his capital; and the transfer of capital from one trade to the other is effected chiefly by bills of exchange. The manufacturer who has sold a less quantity of commodities, will have fewer bills for his banker to discount; the other, having sold a greater quantity of commodities, has more bills for discount. The banker's capital, which he employs chiefly in the discount of bills, is thus easily transferred from one branch of manufacture to another, in exact proportion to the circumstances of the respective parties.

5.—Causes of a low Rate of Interest.

A new calamity has visited our country. The nation groans beneath the pressure of an abundance of money. Where there is most money there is most complaint. The distressed interest is the moneyed interest —for lenders can find no borrowers, and capital is in search of employment. Such is the doleful language of nearly all our banking establishments.

If any one had ventured to predict a short time ago that such would be the present state of affairs, his predictions would have been received with as much suspicion as those of the *Weather Almanack*. It may, therefore, be useful to endeavour to trace the causes of events that have baffled the wisdom of the wise, and set at nought the understanding of the prudent.

The present abundance of money, as compared with its scarcity at a very recent period, may be assigned generally to two causes—a diminution of the demand, and an increase of the supply.

The quantity of money required in any country must depend upon the extent of its trade; and as both the foreign and domestic trade of this country has very considerably decreased within a very recent period,

and is now in a very depressed state, less money is required to carry it on; hence there is a falling off in the demand for money.

The quantity of money required to carry on any given amount of trade depends also upon the general scale of prices; and as the prices of nearly all commodities have been reduced, the amount of money demanded for even the present extent of trade has been proportionably diminished.

While the demand for money has thus been reduced, its supply has been considerably increased. This has been from two sources — domestic and foreign.

The domestic supply has arisen from the return of public confidence. During the season of pressure all confidence was destroyed: the most wealthy commercial houses were subject to suspicion; and even the Joint-Stock Banks knew not how soon they might become exposed to attack from the popular delusion which then prevailed. Hence money was hoarded; every one prepared for the worst; and money became scarce, because nobody would part with it. But on the return of confidence the hoards were brought out—the amounts held by banks in England and Ireland became reduced—the stagnant funds were put into circulation, and overflowed the country.

But the main supply has been from abroad. A reduction of prices caused by a forced contraction of the currency, is sure to render the foreign exchanges favourable. This reaction has been in proportion to the intensity and duration of the previous pressure, and hence large importations of gold have arrived from the continent. This gold is immediately taken to the Bank of England, and exchanged for notes. The money market has thus been inundated by foreign supply.

We have thus stated the *immediate* causes of the present abundance of money. The *remote* causes we do not just now propose to discuss. But we think the facts before us naturally suggest one or two remarks upon the theories of some of our writers upon the currency. Some writers contend that the currency should be regulated by the foreign exchanges. But few have had the courage to follow out this principle to its legitimate conclusion. For if the foreign exchanges are to regulate the currency, the result will be that the Bank of England must always reduce the circulation when money is scarce, and still farther increase it when it is abundant.

The facts before us seem also to show that the absolute amount of notes in circulation is a very imperfect criterion by which to form a judgment as to the abundance or scarcity of money. Other circumstances must always be taken into consideration; thus the circulation of the Bank of England, though considerably increased, yet the difference in the amount is of itself totally insufficient to account for the altered state of our monetary affairs.

It may be observed, too, that the increase in the amount of money in

circulation does not *necessarily* give any stimulus to domestic industry. This abundance of money has lasted for nearly a year, yet at this moment some of the most important branches of our manufactures are in a state of great depression. It is easy to bleed a man to death, but we cannot restore him to life by merely pouring fresh blood into his veins. Yet such appear to be the notions of those who regulate the currency. The body politic was supposed to have become bloated and diseased. The physicians of the Sangrado school recommended bleeding and hot water; and now they would counteract the effects of their own quackery by a profuse supply of the circulating medium.

6.—Causes and Effects of Pressure.

A pressure on the money market may be defined a difficulty of getting money in the London market, either by way of discounting bills, or of loans upon Government securities. This difficulty is usually accompanied by an unfavourable course of exchange, a contraction of the circulation of the Bank of England, and a high rate of interest. These three circumstances have the relation to each other of cause and effect. The unfavourable course of exchange induces the Bank of England to contract her circulation; and the contraction of the circulation, by rendering money more scarce, increases its value, and leads to an advanced rate of interest. The removal of the pressure is in the same order—the foreign exchanges become favourable—the Bank of England then extends her circulation—money becomes more abundant, and the rate of interest falls. The degree to which the exchanges are unfavourable is indicated by the stock of gold in the Bank of England; and when this is at its lowest amount the pressure may be considered to have attained its extreme point; for as the amount of gold increases, the Bank will extend her circulation, and the pressure will subside.

If we take a review of all the recent pressures on the money market, we shall find they have always been preceded by the following circumstances:—First, by abundance of money; secondly, by a low rate of interest; thirdly, by some species of speculative investments. The principal pressures that have occurred of late years, have been those of 1825, 1836, 1839, and 1847.

This objection assumes that a pressure is an evil. It assumes, that to advance the rate of interest to a rate which no profit can afford to pay—to deprive solvent houses of the means of meeting their legitimate engagements—to cause a universal reduction of prices, and thus to baffle the calculations of even the most prudent—to reduce wealthy merchants to the condition of paupers—to deprive manufacturers of the means of executing their orders, and thus to throw thousands of industrious people out of employment—to sell to foreigners large amounts of goods and manufactures at less than the prime cost, thus causing a

great national loss—to paralyze the national industry—to stop the progress of useful works — and to destroy confidence and credit — the objection assumes that a pressure which produces effects like these is a national evil. And such must be the opinion of those who suspended the Act, and of those who approve of that suspension; for it was to prevent or to remove evils like these, that the Act was suspended.

SECTION VI.

THE RELATION OF CAUSE AND EFFECT—CONDITIONAL CAUSES.

A CONDITIONAL cause is a circumstance, or state of things, which is necessary to the production of an effect, but which does not actively produce that effect.

Thus, if a man fall from his horse, it is a necessary condition that he should previously have been on his horse, otherwise he could not have fallen. If a man is hanged for forgery, the active or efficient cause of his being hanged is the commission of the crime: but if he had never learned to write, he could not have committed a forgery; hence his knowledge of writing is a necessary condition. As the condition does not thus actively or necessarily produce the effect, we do not usually use the words "cause" and "effect," but we say, "the condition" and "the consequent," or "the antecedent," and "the consequent;" and sometimes we call the effect, the "*incidental* effect." So it is a necessary condition to the performance of any act, that the man who performs it should be alive. Now then, if a will is produced of a date some years subsequent to the death of the alleged testator, it proves that the will is a forgery. The man might have been alive without making a will, but he could not have made a will unless he had been alive. The condition must have preceded the consequent.

This relation of antecedent and consequent supplies us with various modes of reasoning.

1. From the non-existence of the antecedent, *we infer the non-existence of the consequent.*

Qualifications, instruments, and opportunities are necessary conditions to the performance of any act. If we prove the absence of these we prove the non-performance of the act. If a man has committed murder, it is a necessary condition that he should have been at the *place* when the murder was committed, and at the *time* the murder was committed. Now, if he can prove an *alibi*, that is, if he can prove that he was at a distant place at the time the murder was committed, this proves that he did not commit the murder. The non-existence of the condition proves the non-existence of the consequent. But you cannot reverse this rule. The existence of the condition will not of itself prove the existence of the consequent; for he might have been at the place where, and at the time when, the murder was committed, and yet might not have committed the murder. It might have been committed by some of his companions.

2. Again, from the existence of the consequent *we infer the existence of the antecedent.*

Take the same instance. If a man is proved to have committed a murder, it proves the antecedent, that he was at the place where, and at the time when, the murder was committed. But if it is proved that he did not commit the murder, that is in itself no proof that he was not present when the murder was committed. The non-existence of the consequent is no proof of the non-existence of the antecedent.

Sometimes it is contended in favour of a proposed measure that it is a necessary condition, *i.e.* a conditional cause, to some other measure of still greater importance. Thus the Earl of Shaftesbury advocated in the House of Lords the establishment of Lodging Houses for the poor, upon the ground that domestic comfort is a necessary condition to their intellectual and moral improvement.

By a similar mode of reasoning we sometimes adduce a *precept* to prove a *doctrine*, the truth of which seems *a necessary condition* to the justice of the command. Thus the commands of Scripture to repent, believe, obey, imply as a necessary condition that man has the power to repent, believe, and obey. The threatenings of punishment imply as a neces-

sary condition that man is a free agent; otherwise he could not justly incur punishment. So Archbishop Whately cites an injunction to almsgiving as a scriptural authority for the institution of property.

3. This principle of reasoning is used very extensively in the examination of evidence adduced in our Courts of Law. Sometimes parties are accused of crimes to the perpetration of which there were no witnesses. Their guilt is inferred from the circumstances of the case. This is called "circumstantial evidence," and sometimes "presumptive evidence," as the guilt is *presumed* from the circumstances adduced. Some lawyers have maintained that circumstantial evidence is more conclusive than direct evidence, as there is no danger from the perjury of the witnesses. But others have thought differently. No certain rules can be given for circumstantial evidence. Each cause must depend upon itself.

It may be observed that the conclusiveness of circumstantial evidence does not depend upon the force of any one circumstance, but upon *the strength of the whole united.* If we see a man coming out of a house, with blood on his clothes, that is no proof that he has committed murder. There are many other ways in which his dress may have become bloody. But if we enter the house, and find there a person who has the appearance of having been recently murdered, this causes the former individual to become suspected. If, again, you find the hat of this person in the house of the murdered man; and when this person is apprehended, he denies ever having been in the house; and, moreover, you find concealed in his dress some property proved to have belonged to the man who was murdered;—now, putting these and similar circumstances together, you may have sufficient proof of the prisoner's guilt; for although you might easily assign other causes for any one of these circumstances separately, you cannot assign sufficient causes to account for them all, except on the supposition that the prisoner is the man who has committed the crime. Hence, from the existence of these consequents we infer the existence of the antecedents.

4. Circumstantial evidence is also employed by theologians.

Under this principle of reasoning we may class Paley's *Horæ Paulinæ*, and similar works, designed to prove the authenticity of the Sacred Writings. This work of Paley is confined to the consideration of the Acts and the Epistles. It does not attempt to prove they are genuine, but to prove they are not forgeries. The result is the same, but the mode of reasoning is different. It is presumed that some party has accused these books of being forgeries; and the reasoning is to show, by circumstantial evidence, that the accusation is not true. The evidence is derived from the writings themselves, and rests upon the incidental coincidences that occur between the "Acts of the Apostles" and the "Epistles." Had these writings not been genuine these coincidences could not exist. Here, again, from the existence of the consequences we infer the existence of the antecedents.

The same coincidences are observable in the Gospel histories. "In every narrative," observes Paley, "we perceive simplicity and undesignedness,—the air and the language of reality. When we compare the different narratives together, we find them so varying as to repel all suspicion of confederacy; so agreeing under this variety, as to show that the accounts had one real transaction for their common foundation; often attributing different actions and discourses to the Person whose history, or rather memoirs of whose history, they profess to relate; yet actions and discourses so similar as very much to bespeak the same character, which is a coincidence that, in such writers as they were, could only be the consequence of their writing from fact, and not from imagination."—*Evidences of Christianity.*

Bankers, merchants, and traders judge by this kind of evidence of the solvency and responsibility of the parties with whom they deal. The actual amount of a man's property is generally known only to himself. His standing on the exchange or in the market will depend upon his personal character, his business habits, his conformity to established rules, and the extent to which he practises those moral virtues which are known to be the surest guide to wealth. We are told that "It is of great importance to a banker to have an

ample knowledge of the means and transactions of his customers. The customer, when he opens his account, will give him some information on this subject. The banker will afterwards get information from his own books. The amount of transactions that his customer passes through his current account, will show the extent of his business. The amount of his daily balance will show if he has much ready cash. The extent and character of the bills he offers for discount, will show if he trusts large amounts to individual houses, and if these are respectable. On the other hand, the bills his customer may accept to other parties, and his payments, will show the class of people with whom he deals, or who are in the habit of giving him credit." Another banker observes that, "Next in importance to a study of his accounts, the habits and character of a client are deserving of your attentive consideration. If a man's style of living, for example, becomes extravagant, and he gives himself over to excess, you cannot too promptly apply the curb, however regular the transactions upon his account may seem."

Now, this is judging from circumstantial evidence. By the same kind of evidence we are guided in our domestic adjudications. By this mode of reasoning we judge of the honesty of our servants, of the truthfulness of our children, and of many other transactions connected with family discipline. By this mode, too, we often judge of the sincerity of our friends, and of the character of public men.

5. That form of argument which is called a Dilemma may be classed under the conditional form of reasoning.

Mr. Burke uses the dilemma in arguing against public debts. "If," says he, "Governments provide for these debts by public impositions, they perish by becoming odious to the people. If they do not provide for them, they will be undone by the efforts of the most dangerous of all parties—I mean an extensive discontented monied interest, injured and not destroyed." The objections to the law which prohibits the payment of wages in goods, have been made in the same form. "Either the law will be generally observed, or it will not. If it be generally observed, it will frequently prevent the

workmen from procuring employment, since manufacturers may be able to pay wages in goods when they are totally incapable of furnishing money. If it be not generally observed, which is the most probable case, it will be the means of giving an advantage to those who are dishonest and loose in principle, over the strictly upright and conscientious manufacturers, without any benefit to the workmen." Colonel Torrens employs the dilemma in arguing against the construction of canals (or other public works) by the Government. "If canals could be profitably opened, it would not only be superfluous and absurd, but positively pernicious for Government to undertake them; for in this case, private interests would accomplish the object far more economically. If they could *not* be opened with a profit, it would be pernicious to force capital into an unproductive channel. In either case, therefore, nothing but mischief can result from the interference of Government." In the same form of reasoning Monsieur Say argues against Sumptuary Laws. "Sumptuary Laws are superfluous or unjust. The indulgence proscribed is either within the means of the individual, or not. In the former case, it is an act of oppression to prohibit a gratification involving no injury to others; in the latter case, it is, at all events, nugatory to do so, for there is no occasion for legal interference where pecuniary circumstances alone are an effectual bar."

6. This kind of argument is sometimes composed of three members, and is then called a Trilemma.

It has been remarked as a characteristic of the late Sir Robert Peel, that in introducing his measures to the House of Commons, he often used the trilemma. "Three courses are before us—to go backward, to stand still, to go forward. We cannot go backward; we cannot stand still; we must, then, go forward."

Sometimes a subject is divided into three parts, with the view of disproving two of these parts, in order to affirm the third. Thus, workmen must have fair wages—not too high or too low

"And each of these employers is forced to pay each of his workmen as high wages as the work which the workmen does, and the price

which goods will sell for, will allow. For *if he paid less,* his workmen would leave him to get better wages elsewhere; and *if he paid more,* he would lose instead of gaining, by employing them; and if he were to pay every workman alike, whatever were the quantity or goodness of the work done by him, it is certain that in most cases he would be paying either too much or too little: too much to the bad workmen, and too little to the good ones. Besides this, when workmen are not paid according to their merits, there are scarcely *any* good ones; because when they see that they are no gainers by working well, and working hard, they all become idle or careless."—*Easy Lessons on Money Matters.*

The following illustrations of this principle of reasoning are taken from the Author's writings on banking:—

1.—Antecedents of the Pressure of 1836.

With regard to the pressure of 1836, there was in the beginning of that year no appearance of distress. But, on the contrary, every symptom of prosperity, attended by its usual concomitant—a readiness to engage in speculative undertakings.

The following description of this period is taken from the speech of Mr. Clay, on introducing his motion respecting Joint-stock Banks, May 12, 1836:—

"To what extent the operations of the joint-stock banks may have contributed to create the present state of excitement in the commercial world, must, of course, be mere matter of conjecture. That they have had some considerable influence is probable, from the fact that the excitement and rage for speculation is greatest in those parts of the kingdom where the operations of those establishments have been most active. London has been comparatively unmoved, but Liverpool and Manchester have witnessed a mushroom growth of schemes not exceeded by the memorable year 1825. I hold in my hand a list of seventy contemplated companies for every species of undertaking, which have appeared in the Liverpool and Manchester papers within the last three months. This list was made a fortnight or three weeks since, and might probably now be considerably extended. It is impossible also, I think, not to suspect that the facility of credit, and consequent encouragement to speculation, to which I have alluded, cannot have been without its effect in producing the great increase of price in almost all the chief articles of consumption and raw materials of our manufactures. That increase has been enormous—not less than from twenty to fifty, and even one hundred per cent., in many of the chief articles of produce, of consumption, and materials of our manufactures."

These appearances continued with little alteration until the month of July, when the Bank of England raised the rate of discount to four-

and-a-half per cent. It then became known that there had been a demand upon the bank for gold from the preceding April, and this measure was adopted by the bank as a means of rendering the foreign exchanges more favourable. This being found ineffectual, the bank in September raised the rate of discount to five per cent. Besides raising the rate of interest, the bank adopted other measures of increasing the value of money. A large amount of American bills upon first-rate houses had been offered for discount and rejected. A high degree of alarm was immediately spread throughout the community. The dread of a panic similar to that of 1825 almost universally prevailed. Those who had money were unwilling to part with it—trade became suddenly stagnant—the prices of all commodities fell considerably, and numbers of commercial houses, chiefly of the second class, suspended payment. Many railway and other projects now fell into oblivion.

The alarm that existed was kept up by the monthly accounts of the bullion in the Bank of England. The public returns showed a gradual decline from April, 1836, to February, 1837. It was therefore supposed that the Bank of England would be under the necessity, for her own safety, of still further contracting her issues, and thus increasing the existing pressure. This apprehension caused all persons who had money to retain it in their possession, and bankers and others withheld accommodation they would otherwise have been disposed to grant.

This state of alarm was considerably augmented by the publication of the Report of the Secret Committee of the House of Commons upon Joint-stock Banks. This committee had been appointed on the motion of Mr. Clay, the Member for the Tower Hamlets, whose speech on the occasion might be termed a bill of indictment. The joint-stock banks had rapidly increased; they had issued small shares; they had large nominal capitals; they had circulated an excessive amount of notes; they had promoted speculation. These were the charges brought against them; and they had greater weight from being advanced by a member who was known to be friendly to joint-stock banking. The report of the committee appeared to sustain all Mr. Clay's accusations. This report was highly creditable to the talents and industry of the committee, but marked by a decided hostility of tone. While it enumerated all the actual or possible imperfections of the joint-stock banks, it ascribed to them scarcely a single excellence. At the same time, the committee deferred to the succeeding session the proposal of any measures for their improvement; thus the public were led to suppose, that in the following session some stringent measures would be adopted with reference to joint-stock banks, but what they would be, none could conjecture.

Had the report appeared at any other period, it might possibly have done good; but as its appearance was contemporaneous with a pressure on the money market, and a high state of alarm, it unquestionably

tended to weaken public confidence, at a time when it required to be strengthened. Persons who were unfriendly to joint-stock banks seized the opportunity of dispraising them; and believed, or pretended to believe, that the banks were unsound, and would certainly stop payment. Others, who were friendly, were apprehensive that the banks, being still in their infancy, would be found too weak to withstand the storm now raised against them. But though this alarm began with respect to joint-stock banks, it did not end there. It was soon foreseen that if a few joint-stock banks were to stop payment, the private banks in their neighbourhood would be put to a severe trial; and if the banks should even be compelled to withhold their usual advances to their customers, the credit of individuals must suffer. Hence the private bankers and the merchants, as well as the joint-stock banks, made preparations to meet any event that might occur, and by thus increasing the pressure on the London money market, occasioned still further apprehensions.

The alarm was augmented by the stoppage of the Agricultural and Commercial Bank of Ireland, in the month of November, and the demand for gold which that stoppage occasioned in Ireland. The joint-stock banks of England now became subject to increased suspicion; the accommodation they had been accustomed to obtain by the rediscount of their bills in the London market was considerably restricted; and in the beginning of December, the Northern and Central Bank at Manchester, a bank having a paid-up capital of 800,000*l.* with above 1,200 partners, and forty branches, applied for assistance to the Bank of England. This was afforded upon condition, in the first instance, that they should wind up all their branches except that at Liverpool; and afterwards further assistance was granted, upon condition they should discontinue business after February, 1837. Soon afterwards, the old and respectable London banking-house of Messrs. Esdaile & Co. received assistance upon similar terms.

2.—Antecedents of a Failure.

There are certain signs of approaching failure, which a banker must observe with reference to his customers. Thus—if he keeps a worse account than heretofore, and yet wants larger discounts—if the bills offered for discount are drawn upon an inferior class of people—if, when his bills are unpaid, he does not take them up promptly—if he pays in money late in the day, just in time to prevent his bills or cheques being returned through the clearing; but, above all, if he is found cross-firing: that is, drawing bills upon parties who at the same time draw bills upon him; as soon as a banker detects a customer in fair credit engaged in this practice, he should quietly give him reason for removing his account.

Sometimes two parties, who keep different bankers, will adopt a practice of exchanging cheques. Their cheques are paid into the banks too late to be cleared on the same day; and hence the parties' accounts appear better the next day than they otherwise would be. Some failing parties, too, have recourse to forged or fictitious bills, which they put into circulation to a large amount. The best way for a banker to guard against loss from this practice is, to inquire in all cases about the accepters of the bills that he discounts, not only when his customers are doubtful, but even when they are deemed respectable. Indeed it is only people in good credit that can pass fictitious bills.

The banker's rule is, that they who have discounts must keep a proportionate balance: this is useful, as the amount of balance kept is an indication of the circumstances of the party. When a customer has heavy discounts, and keeps but a small balance, it may usually be inferred that he is either embarrassed in his affairs, or he is trading beyond his capital.

3.—A Conditional Cause of Private Banking in England.

In the year 1708, a clause was inserted in the charter of the Bank of England, prohibiting the establishment of any other bank having more than six partners. This clause prevented the formation of any other joint-stock bank; and, as the increasing wealth and commerce of the nation occasioned a demand for banks of some sort, a great number of banks, each having no more than six partners, rose into existence, as they were successively required by the wants of the country. The charter of the Bank of England had no reference to Scotland, which at that period was a separate kingdom. Hence, with the increasing wealth of Scotland, joint-stock banking companies were formed; and at present they conduct nearly the whole of the banking business of that country. But, with every renewal of the charter of the Bank of England, this clause was retained, and hence has arisen the difference which subsists between the Scotch and the English systems of banking.

4.—Conditional Causes of the System of Exchanges in Scotland.

Even were the keeping of a banker as general in England as in Scotland, the same system of Exchanges could not be adopted. The Scotch system requires an equality, or an approach to it, among the several banks; that the head offices of these banks, generally, should be in the capital; and that the banks should have numerous branches throughout the country. These circumstances do not exist in England. And, moreover, we have the Bank of England, whose notes are a legal tender. It is obvious there can be no exchange of notes in places where, as in London, there is only one bank of issue. But the exchanges between English country banks are precisely upon the same principle as

those in Scotland, and have similar effects. The differences are paid by drafts on London, payable on demand; and these drafts again pass through the clearing.

5.—Incidental Effects of the Act of 1844.

Beyond the practical benefits acquired, the measure was productive of some collateral advantages.

One advantage was, that joint-stock banks were for the first time placed upon an equality with private banks. Whenever legal disabilities are, either justly or unjustly, inflicted upon private individuals or on public bodies, the parties are always damaged in general estimation. Such was the case with the joint-stock banks; but from this evil they will now be free. The legal distinction between banks having *not* more than six partners, and banks having more than six partners, will no longer exist. All banking companies will be equal in the eye of the law, and each individual bank will take that standing in public estimation to which it will be entitled by its own character and conduct.

Another advantage is, that the joint-stock banks of issue are delivered from those unjust accusations to which they have hitherto been exposed. Almost every evil that has befallen the country has been ascribed by different writers to the reckless issues of the joint-stock banks; and though the charge has been often refuted, yet such has been the talent, zeal, and perseverance with which it has been revived, that it has doubtless in some degree prejudiced the public mind. But now this charge can be made no more. Our assailants are compelled to observe a truce. We shall have no Bank directors publishing pamphlets to show that their efforts to regulate the exchanges have been counteracted by the imprudent issues of the joint-stock banks. Our notes will not again be classed by the authors of "prize essays" among the causes of national distress, and philosophical writers will no longer declaim in eloquent metaphor against "the wild democracy of rival issuers." It is no small matter to be put into a position wherein we shall be sheltered from the peltings of unjust accusations.

All the hostile measures heretofore taken by the Bank of England against the joint-stock banks, have arisen from erroneous impressions relating to the currency. The London joint-stock banks were not allowed to accept bills, from an absurd fear that the practice might be abused so as to affect the currency. Bills endorsed by joint-stock banks of issue were refused to be discounted, lest they might become an instrument for expanding the currency. This bone of contention is removed. The Bank of England has laid aside her coronet, and become one of us. "The Old Lady of Threadneedle-street" is transformed into our younger brother, and it may be hoped that this new

relationship will be cemented, on both sides, by a corresponding degree of fraternal regard.

Another effect of Sir Robert Peel's measures was, that it tended to improve our system of management. In cases of pressure on the money market, arising from an unfavourable course of exchange, the Bank of England will not be able, as heretofore, to relieve that pressure by a further issue of notes; and, so far from granting assistance to other banks, she may, from the extent of her transactions, be more in need of assistance herself. We must, therefore, conduct our banks, individually, on a principle of self-dependence; we shall have to limit our overdrawn accounts, to avoid all advances on inconvertible security, and to call up such an amount of capital as shall secure to us the means at all times of giving reasonable accommodation to our customers. On the recurrence of a pressure, similar to that of 1839, the cry will be *sauve qui peut*—every one must take care of himself.

6.—Conditions of a Theory.

It is assumed in this theory that paper is a substitute for coin; that the forty millions of bank notes now circulating in England, Scotland, and Ireland represent forty millions of sovereigns; and that were the notes abolished, their place would be supplied by an importation of forty millions of gold. These points remain to be proved. We are inclined to believe that were these notes abolished, their place would be supplied chiefly by bills of exchange, or some other description of paper money. Secondly, it is assumed that a purely metallic circulation would perpetually vary in amount, according to the fluctuations in the foreign exchanges; that were six millions of gold imported, it would add six millions to the amount of the currency; and, on the other hand, if six millions of gold were exported, it would lessen the currency by six millions; this, too, remains to be proved. Even if gold bullion were used as currency, we see no reason why all the gold bullion in the country should be used as money. Gold is an article of trade, and why, therefore, should every additional quantity imported be added to the quantity used as money? But we do not use bullion as money, but coin; and it is clear that bullion cannot be used as money until it is coined. The privilege of coining money belongs to the sovereign. France has a silver currency; does this increase or diminish in quantity according to the exportation or importation of silver? So far from this being the case, France has been adduced as a proof of the permanency attending a metallic currency. What proof, then, have we that, were our currency purely metallic, it would increase and diminish in quantity according to the fluctuations of the exchanges? Thirdly, it is next assumed that a paper currency ought to be so regulated as to make it correspond in quantity with the assumed fluctuations in a metallic currency. If it could be proved that a purely metallic currency would

perpetually fluctuate with the foreign exchanges, so far from regarding such a state of things as a state of perfection to which the nation ought to aspire, we should regard it as a calamity that would call loudly for legislative remedy. Granting, however, that this would be the case, are we bound to make the paper currency correspond exactly to the supposed changes of a metallic currency? It seems a great advantage to have a currency that is capable of expanding and contracting in all the localities throughout the kingdom, exactly as the wants of trade may require. And why should we forego these advantages merely to make our paper currency correspond with the supposed changes of a metallic currency, without any satisfactory proof that the paper currency supplies the place of a metallic currency, or that a metallic currency would undergo these changes?

7.—A Dilemma—on the Regulation of the Currency.

The fluctuations in the value of money produced by attempting to regulate the currency by the foreign exchanges are injurious to both the London and the country bankers. In seasons when money is abundant, the bankers obtain but a low rate of interest on their loans and discounts—and they are tempted to make imprudent investments, in order to employ their funds. And when, on the other hand, money is scarce, the amount of their lodgments is reduced—the rate of interest allowed on the permanent deposits is advanced—a larger sum is kept unemployed in the till—and there is more danger from losses, either by the failure of parties in debt to the bank, or by the necessity of realizing Government securities. Those country bankers who are in the habit of re-discounting their bills in London are induced, when money is abundant, to carry this system to a great extent; because they can obtain money at a low rate in London, and lend it at a higher rate in the country. But when money becomes scarce, they have to pay an exorbitant interest, or are denied discounts altogether, and they are then compelled to refuse their customers their usual accommodation, and great distress is occasioned in the provinces. Except under peculiar circumstances, both the extremes of abundance and scarcity of money are unfavourable to large banking profits. A state in which money is easy without being abundant, and valuable without being scarce, is the most conducive to the prosperity of both the banking and the commercial interests of the country.

8.—A Dilemma—on the Bank Charter.

In tracing the history of banking, we may observe that most public banks have been formed, in the first instance, under the protection of the Government of the State in which they were established. Such was the case with the banks of Venice, Genoa, and Amsterdam; and such,

too, was the case with the banks of England, of Scotland, and of Ireland. The former were closely connected with the State, and may properly be called "State Banks;" the latter had peculiar privileges bestowed by charter, and are usually called "Chartered Banks." These privileges may be divided into two classes—those which refer to the proprietors themselves, and those which refer to other parties. The privileges of the first class relate to the amount of capital, the form of government, the number of the directors and the mode of their nomination, the meeting of the proprietors, and the specification of the branches of business the bank are allowed to carry on. The privileges of the second class refer to the restricted liability of the shareholders, and the prohibition of other parties carrying on the same business. If the charters granted to banking companies conferred only the first class of privileges, they would be liable to but little objection. In the infancy of commerce and of banking, the assistance of the Government may with propriety be granted to encourage the formation of institutions so eminently calculated to promote the public advantage. But of what avail are prohibitory clauses? If no other persons are disposed to form similar institutions, then those prohibitions are a nullity. But if other parties are disposed to form similar companies, without the assistance of the Government, then why should the Government interfere at all? Why should they grant a charter to effect an object which can be effected without their assistance?

SECTION VII.

THE RELATION OF CAUSE AND EFFECT—FINAL CAUSES.

WITH regard to intelligent beings, actions are the *effects* of motives or feelings. Hence the motive or design of an action is called *its final cause.* With regard to final causes and effects, the mode of reasoning is, *from the existence of the cause to infer the existence of the effect,* or from *the existence of the effect to infer the existence of the cause.* Moral causes refer to habits, events, and institutions. Final causes refer generally to individual acts. The following is an example:—

"Smith has shown that labour is the real source of wealth: that the wish to augment our fortune and to rise in the world—a wish that comes with us from the womb, and never leaves us 'till we go into the grave—is the cause of wealth being saved and accumulated."—*M'Culloch.*

1. The doctrine of final causes enters largely into the science of Natural Theology. From the adaptation of certain arrangements to answer certain purposes, we infer that these arrangements were *designed* to answer these purposes. Thus, the eye is adapted for seeing: we infer it was made to answer that purpose. And so we argue respecting hearing, and of all the other animal functions. You may see a large enumeration of similar instances in Paley's Natural Theology, and in the Bridgewater Treatises. From the manifold proofs of design in the world, we infer the existence of a Designer These effects denote intelligence, and hence we infer the existence of an intelligent Cause.

From the manifestation of certain attributes or qualities in the works of Creation and Providence, *we infer the existence of these attributes and qualities* in the Intelligent Cause. Hence we demonstrate the power, wisdom, goodness, and other attributes of God. Thus we prove the *goodness* of God by facts showing that the works of nature are so constructed as to produce pleasure as well as utility to his intellectual creatures.

The doctrine of final causes also enters largely into our reasonings on the nature and character of the human mind, and on the circumstances by which we are surrounded. From the properties, or qualities, or *faculties of the mind*, we infer the existence of a *corresponding design.* Man has a capacity for being happy—we infer he was designed to be happy. Man has a capacity for acquiring knowledge—we infer he was designed to acquire knowledge. Man has feelings and capacities adapted for society—we infer he was designed to live in society. Man has faculties and capacities adapted for an immortal state of existence—we infer he is destined to be immortal.

In the same way, from the attributes, qualities, and capacities of the animal creation, we infer the design or final cause of their creation. The following argument, from the relation of final cause and effect, has been advanced in favour of sporting:—

"As Nature, with a liberal but not lavish hand, has bestowed on her

offspring those powers and propensities only, which their own necessities, or the general order and economy of the system require—the gifts of scent to the hound, swiftness to the greyhound, and sagacity to the pointer, denote the use which she intended man to make of these animals; and, therefore, the diversions in question are justifiable, as fulfilling the intentions of Nature herself."—*Bailey's Questions in Political Economy.*

It is a principle of moral philosophers, that the final cause or motive of an action forms the moral character of the action.

2. The doctrine of final causes enters largely into the administration of the law.

Sometimes this mode of reasoning is employed by the lawyers *in fixing the meaning* of an Act of Parliament. Our laws are made by the legislature, but their meaning is fixed by the judges. It sometimes happens that the wording is uncertain or obscure, and that one clause appears to contradict some other clause. In these cases the judges inquire into the intention of the Act: that is, the intention of the legislature in passing the Act. This intention is sometimes called the spirit of the Act; and when a clause has two meanings, the judges will decide in favour of that meaning which is most in conformity with the spirit of the Act. Take, for example, the Reform Act passed in 1831. The intention of the Act was to extend the privilege of voting for members of Parliament. In case, therefore, the meaning of any of the clauses should be doubtful, that meaning which is most favourable to the extension of the privilege of voting for members of Parliament is most in conformity with the spirit of the Act. If you watch the proceedings of the Courts of Law, you will observe many cases illustrative of this kind of reasoning.

In judicial cases, also, this principle of final causes is acknowledged. From *the effects of any motive*, the law infers the *existence* of the motive. If a man commits murder, the law assumes that he intended to commit murder. So, if a dozen persons, who never saw each other before, should join in an illegal act, they may be indicted for a conspiracy;

for their acting in concert will be considered as a proof of an intention to act in concert.

Final causes form an important part of the investigation in cases of circumstantial evidence. If we show that the prisoner had *a strong motive* for committing the offence, such as avarice, revenge, &c., or had stated beforehand *a determination* that he would commit it; this, with other circumstances, will be considered as tending to prove that he did commit it.

Under the head of final causes we may place those reasonings that are founded on the presumed object of the measures we advocate. Thus, in regard to the punishment of criminals, one party contends that *the main object* is the punishment of the criminal; another contends that the main object is the reformation of the criminal; and a third contends that the main object of punishment is the prevention of crime. The opinion any one may entertain as to the final cause or *main object* of punishment, will, of course, influence his sentiments as to the *nature, duration, and severity* of the punishments that ought to be inflicted.

Under this head of final cause and effect, we may class those reasonings that are designed to prove the object or design of the laws of ancient nations.

Montesquieu's "Spirit of Laws," and Michaelis's "Commentaries on the Laws of Moses," are full of reasonings of this description. In cases when a legislator has not himself stated the object of his laws, *their design can be gathered* only from a consideration of *the nature of the enactments* in connexion with the *character of the people* among whom they were promulgated. In his pamphlet on "Marriage with the Sister of a Deceased Wife," Dr. Croly has made some striking remarks on "The Mosaic Code."

3. Political economists sometimes argue upon this principle. They assign motives to different classes of society, and then infer that persons under the influence of such motives would act in a certain manner; and on the conduct thus assumed, they sometimes construct a theory.

Thus, Mr. M'Culloch states that "the wish to augment our

fortunes comes with us from the womb, and never leaves us till we go into the grave." This may be the case generally in Scotland; but it is not so in Ireland, and it is not so universally anywhere. In all classes of society, many individuals are found who prefer present enjoyment to a future improvement of their condition. Another erroneous assumption is, that the uninstructed classes of society, when left to themselves, will always do that which is most conducive to their own advantage. This argument has been advanced in opposition to those acts of the legislature that refer to regulating the hours of labour in the manufactories, and to the working of women and children in mines. The reasonings of some economists, with reference to these matters, will, on examination, be found to rest on erroneous assumptions.

In tracing the progress of society, too, the economists assume that mankind were originally savages; then became hunters, then shepherds, then agriculturists, and at last merchants and manufacturers; and they attribute to mankind, in these several stages, precisely the same feelings and motives which men entertain in the highest degree of civilization. Some political economists have written very fallaciously on this subject. For, in the first place, there is no foundation for the theory that the savage life was the original state of man; and, in the next place, man in a savage state does not possess within himself that thirst for knowledge and desire for improvement which is exhibited by man in a state of civilization.

4. As all actions result from the feelings of the mind, when we wish to induce any person to perform certain actions we try to produce in his mind those convictions and feelings which are the usual cause of such actions.

It is the great object of logic to teach us how to select and use those arguments that have an effect upon the judgment and understanding. But sometimes people are influenced more by their feelings than by their judgment. In this case, if we wish to convince or persuade them, we must adapt our arguments to their feelings. The parties who are thus influenced by their passions, can hardly be said to reason; but

we who are trying to influence them may be reasoning, nevertheless. We are using a means to accomplish an end; we are selecting such arguments, and placing them in such a form as are best adapted to produce an impression on the mind of the individual with whom we converse.

The argument called *Argumentum ad hominem* is often employed for this purpose.

"Sometimes we may make use of the very prejudices under which a person labours, in order to convince him of some particular truth, and argue with him upon his own professed principles as though they were true. This is called *argumentum ad hominem,* and is another way of dealing with the prejudices of men.

"Encrates used this means of conviction when he saw a Mahometan drink wine to excess, and heard him maintain the lawfulness and pleasure of drunkenness. Encrates reminded him that his own prophet Mahomet had utterly forbidden all wine to his followers; and the good man restrained his vicious appetite by his superstition, when he could no otherwise convince him that drunkenness was unlawful, nor withhold him from excess!"—*Watts's Logic.*

5. The doctrine of final causes enters largely into our reasonings on the ordinary affairs of human life.

We act upon this principle *in judging of other people.* As actions are the effect of motives and feelings, we infer from the character of the actions the character of the motives or feelings. "A good tree bringeth forth good fruit, and an evil tree bringeth forth evil fruit; for a tree is known by its fruits."

In cases where the same action may arise from *different motives,* we endeavour to ascertain *to which motive* the action should be ascribed. Our usual mode of reasoning in this case is from circumstantial evidence: from the existence of the consequent, we infer the existence of the antecedent.

The effects of circumstances upon the disposition of the mind may fairly be placed under this head, and they enter largely into our daily reasonings. In conformity with this principle, if a man has received a good education, we expect to find him well informed; if he has mixed in polite society, we presume his manners are courteous; if he has held certain positions in society, we infer that he has the excellencies, and

probably the defects, connected with that position; and if we are wise, we shall consider the peculiar temptations to which our own circumstances expose us, and endeavour to guard our minds against them.

So there are certain social relations, which are usually attended with certain feelings; and hence we expect *in such relations to find such feelings*, and that the actions will correspond with such feelings. Where there is no such correspondence, we infer that the parties have been unfaithful to their duty. Hence, an unrighteous judge, a cruel husband, an unkind father, an undutiful son, are characters which mankind in all ages have unanimously denounced.

And finally, we endeavour to act towards other people in such a way as we judge, from the ordinary principles of human nature, is likely to procure for us their good opinion.

The following illustrations of this principle of reasoning are taken from the Author's writings on banking:—

1.—A Banker should know Himself.

It is a great advantage to a banker, and indeed to every one else, to know himself. He should know wherein he excels, and wherein he is deficient. He ought to know whether he is disposed from his temperament to be excessively cautious, or excessively liberal—whether his manners are courteous or abrupt—whether he is apt to view matters on their gloomy or on their bright side—whether social intercourse renders him more or less fit for his official engagements—whether the presents and civilities he receives from his customers do, or do not, affect his transactions with them in matters of business. When he has made a loss, he should examine whether the loss was occasioned by the ordinary operation of events or produced by any little weaknesses of his own character. He should record all those instances in which he has shown a want of firmness, of discretion, of discrimination, or of perseverance; and should guard in future against the exhibition of any similar defect:

"Man, know thyself; all wisdom centres there."

But while a banker should make himself acquainted with his own defects, he ought not to let his customers become acquainted with them. All wise men know their own defects; none but fools publish them. Crafty men, who often have occasion to borrow money, are quick in perceiving the weaknesses of their banker. And if they find that by coaxing, or flattering, or gossiping, or bribing, or threatening, they can

influence his conduct, he will always be at their mercy. On this account it is, perhaps, advisable that a banker should not have too much social intercourse with those of his customers who have occasion to ask him for any large amount of accommodation.

2.—The Mental Training of Clerks.

A banker at the head of a large establishment should not only be acquainted with the art of banking—he ought also to be acquainted with the art of government. He ought to put a clever man at the head of each department, and reserve to himself only the duty of general superintendence. He should give these parties a pretty wide discretion, and not encourage them to ask his instructions about matters of comparatively trifling importance. If he does this, they will never learn to think for themselves—never feel that wholesome anxiety which results from a sense of responsibility—and never acquire that decision of mind which arises from the necessity of forming an independent judgment. Consequently, they will be less useful to him in their present position, and never become qualified for higher offices.

In training clerks for intellectual offices, it is advisable not to give them too many instructions with regard to minute details. They should be taught to think for themselves. A man's talents are never brought out until he is thrown, to some extent, upon his own resources. If, in every difficulty, he has only to run to his principal, and then implicitly obey the directions he may receive, he will never acquire that aptitude of perception, that promptness of decision, and that firmness of purpose, which are essentially necessary to those who hold important and responsible offices. Young men who are backward in this respect should be entrusted at first with some inferior matters, with permission to act according to their discretion. If they act rightly, they should be commended; if otherwise, they should not be censured, but instructed. A fear of incurring censure—a dread of responsibility—has a very depressing effect upon the exercise of the mental faculties. A certain degree of independent feeling is essential to the full development of the intellectual character. It should be the object of a banker to encourage this feeling in his superior officers. Those bankers who extend their commands to the minutest details of the office, exacting the most rigid obedience in matters the most trivial—harshly censuring their clerks when they do wrong, and never commending them when they do right—may themselves be very clever men, but they do not go the way to get clever assistants. At the same time, they exhaust their own physical and mental powers by attending to matters which could be managed equally well by men of inferior talent.

After a clerk has become a manager, his education has yet to be completed. Lord Bacon observes, that reading makes a wise man; writing, an exact man; and conversation, a ready man. Whatever

knowledge he may have acquired by reading or otherwise—however exact he may have been in the discipline of the office—the young manager has yet to become a ready man. He has to apply his knowledge promptly and independently, and, at the same time, wisely. This habit he will acquire by time. The exercise of authority over other men produces an independence of mind which is friendly to the maturing of the understanding; while the necessity for giving immediate decisions in conversation with his customers will have a tendency to produce promptness of judgment. There is no profession in which experience is more useful than in banking. But it is useful, not so much in the amount of knowledge that is acquired (though that is important), as in the improvement it imparts to those intellectual faculties which are called into exercise. It is by constant practice that these faculties gather strength. Habits are formed by repeated acts, and they can be formed in no other way.

3.—Salaries of Clerks.

There would be considerable difficulty in applying the rules laid down by political economists with regard to the wages of labour to the case of bank clerks. A banker does not hire a clerk because he is the cheapest man he can get, nor does he dismiss him as soon as he can get another man to do the same work at a lower price. He would not find it his interest to do this; for his work is of a peculiar kind. His clerks must have a certain degree of education and of manner, and be taken from a certain class in society. They are not allowed to engage in any other employment. They have to maintain a respectable appearance. They must be qualified not merely for the lowest post in the bank, but must be prepared to take higher posts should vacancies occur. And in every post they are entrusted with a large amount of property, and upon their integrity and prudence much reliance must at all times be placed. All the circumstances serve to show that, in fixing the amount of their salaries, the banker should be anxious to err (if he err at all) on the side of liberality.

He ought also to take into consideration the effect which the amount of salary produces on the mind and condition of the party receiving it. If an advance of salary quickens the attention or the zeal, or strengthens the fidelity of a party, or induces him to cultivate those talents which add to his efficiency—or if it enables him to move in a higher class of society, and gives him a station and an influence which enable him to be useful to the bank—then is such advance of salary—though entered in the books under the item of expenditure—an outlay of capital which is repaid to the banker with interest in the effect it produces—an outlay that becomes probably one of the most profitable of his investments.

4.—Salaries of Managers.

A very prudent class of proprietors exhort the directors to practise the strictest economy. When rightly understood, this exhortation is worthy of the rounds of applause with which it is usually attended. But it is liable to be misunderstood. In banking, as in housewifery, the lowest-priced article is not always the cheapest. The largest portion of the expenditure of a bank consists of salaries. Hence an exhortation to economy amounts to—"Keep down the salaries of your officers;" and as the manager has the largest salary, he will most likely be the heaviest sufferer.

A more mischievous recommendation, when thus understood, can hardly be conceived. Next to having a dishonest manager, the greatest evil is to have one that is badly paid. If he is known to be poor, his advice will have less weight in the board-room; the directors, individually, will treat him with less respect; his wealthy customers will not disclose to him their private affairs; the needy class, when refused discount, will insult him by threatening to complain to the directors, and his inferior officers will be less prompt in their obedience. But worse than all this will be the effect produced upon his own mind. He will not be, and he cannot be, so efficient a manager, when badly paid, as he would be if he received a liberal remuneration. It is the besetting sin of men of business that they never pay attention to MIND, though among no class are mental phenomena more strikingly exhibited. The amount of his salary is the only tangible means by which a manager can judge how far his services and his character are appreciated. It is not the money alone, but the feelings, of which the money is an indication, that produces an effect on the mind. It is a law of our nature, that the kindness, liberality, and generosity of others, will produce corresponding feelings in ourselves. And it is another law of our nature, that when the mind is under the influence of such feelings, it is capable of intellectual efforts of a higher order. But we forget;—we were writing about pounds, shillings, and pence, and our pen has darted off into philosophy. We will now return.

5.—Advantages of Education.

What is a Banking Institute, and in what way will it be advantageous? He would reply—A Banking Institute is a voluntary association established for literary purposes by persons who are engaged in the business of banking. And it is designed to be advantageous to the members of whomi t will be composed, to the banks with which they are connected, and to the public at large. The definition he had given of it as a "voluntary association" distinguished it from two existing associations —the "Association of Country Bankers," and another body, called "The Committee of Deputies." Both of them were bodies of delegates

appointed by different associations of bankers, for the purpose of protecting their interests against injurious legislative enactments. The Banking Institute, in contradistinction, did not profess to be a representative body. The members represented nobody but themselves. The purposes they had in view were not legislative, but literary, purposes. The advantages of the Institute would be enjoyed chiefly by the members of whom it was composed.

It was a mistake to suppose that banking is so completely a routine employment that it does not admit of the exercise of the intellects. Observe, for instance, the most routine of all employments—that of a ledger-keeper. If he be an intellectual man, you will find that he has a number of little expedients of his own invention by which he shortens his labour, insures his accuracy, and renders his services more agreeable to himself and more useful to his principals. In improving a system of book-keeping, in making a better division of labour, in establishing a proper discipline in the offices, in his intercourse with the public and the customers, and in many other respects, an intellectual clerk will render himself useful to the bank, and will exemplify a vast superiority, even in his mechanical duties, over one who has not attended to the improvement of his mental faculties. A banker who is thus surrounded by a number of intellectual clerks, has a vast facility in conducting his establishment, and can readily obtain from them information and assistance which will enable him to lessen his own labours, and, at the same time, to render his bank more prosperous.

Among the means of training clerks for superior offices, we should give a high rank to the formation of a library of banking books, to which the whole of the establishment should at all times have access. The time is gone by when it was a reproach for a young man to be bookish, as he was supposed to abstract so much more time and attention from his official duties. It is now well known that the general cultivation of the intellectual powers renders them more effective in every operation in which they may be exercised. It is a great advantage to a bank to have educated servants. Their superior knowledge is always useful—the mental discipline they have acquired improves their business habits—and, possessing within themselves a constant source of enjoyment, they are the less likely to indulge in those expensive pleasures which are the usual temptation to neglect and dishonesty. It seems likely that very soon a movement will be made in favour of universal education. I think it desirable that bank managers and branch managers should aid this movement in their respective localities, and should support generally, by their assistance and influence, the formation of literary and scientific institutions. This would afford an outlet for any surplus energy of character that might remain after the hours of

business, and enable them to promote the public good, without taking part in political or religious discussions. They would acquire for themselves much pleasurable and profitable amusement, would add to the usefulness and respectability of their character in public estimation, and thus be enabled to increase the influence of their respective establishments.

6.—Moral Influences of Banking.

Banking also exercises a powerful influence upon the morals of society. It tends to produce honesty and punctuality in pecuniary engagements. Bankers, for their own interest, always have a regard to the moral character of the party with whom they deal; they inquire whether he be honest or tricky, industrious or idle, prudent or speculative, thrifty or prodigal; and they will more readily make advances to a man of moderate property and good morals, than to a man of large property but of inferior reputation. Thus the establishment of a bank in any place immediately advances the pecuniary value of a good moral character. There are numerous instances of persons having arisen from obscurity to wealth only by means of their moral character, and the confidence which that character produced in the mind of their banker. It is not merely by way of loan or discount that a banker serves such a person. He also speaks well of him to those persons who may make inquiries respecting him: and the banker's good opinion will be the means of procuring him a higher degree of credit with the parties with whom he trades. These effects are easily perceivable in country towns; and even in London, if a house be known to have engaged in gambling or smuggling transactions, or in any other way to have acted discreditably, their bills will be taken by the bankers less readily than those of an honourable house of inferior property.

It is thus that bankers perform the functions of public conservators of the commercial virtues. From motives of private interest they encourage the industrious, the prudent, the punctual, and the honest—while they discountenance the spendthrift and the gambler, the liar and the knave. They hold out inducements to uprightness, which are not disregarded by even the most abandoned. There is many a man who would be deterred from dishonesty by the frown of a banker, though he might care but little for the admonitions of a bishop.

7.—Mental Effect of Abundance of Money.

In these replies the witness seems to have intimated the way in which an increase of money tends to advance prices; that is, by increasing the demand—an increase of money gives men the means and the inclination of purchasing an additional quantity, either for consumption or speculation, and the increased demand advances the price. It is no objection to this doctrine to say, that prices may advance from other causes than an increase of the currency; no doubt they may. But this is not the

question. The question is, whether the abundance of money is not one cause? It should be recollected, too, that money always acts intermediately. When money is abundant, people are more disposed to make purchases or engage in speculation; but the particular direction in which the money may be employed, depends upon a variety of circumstances. Thus, it is stated, that the fall of prices which took place in the latter end of 1836, arose from large importations; but, we may ask, was not the previous abundance of money the cause of those large importations? Again, it has been maintained that the panic of 1836 arose from the expansion of American credit; but, we may ask, was not the abundance and cheapness of money one cause of that expansion of credit? Money always operates, in the first instance, by producing a moral effect; by a moral effect, we mean an effect upon the minds of men. In fact, fluctuations in the currency can produce no physical effects without, in the first place, producing a moral effect. Abundance of money makes men buoyant, sanguine, and enterprising, and hence they go into speculation. The feeling becomes contagious, and sometimes a whole nation goes mad. On the other hand, a scarcity of money makes men cautious, timid, and apprehensive, and hence they prepare for the worst that can come upon them. In consequence of these mental affections, fluctuatious in the currency often produce greater effects than the mere amount of the fluctuation would lead us to expect. We conclude, then, that an abundance of money has a tendency to raise the prices of commodities; and we think it no objection to this doctrine to say, that, in some cases, there have been increased issues of money without a general advance of prices; for sometimes these increased issues may not be employed in commerce, but be employed in domestic investments or foreign securities. Nor do we think it any objection to this doctrine to prove, that the advance in the price of any particular commodity may occasionally be accounted for by some peculiar circumstances connected with that commodity. We believe this is generally the fact. Speculators and merchants have always some peculiar reason for dealing in one commodity rather than in another; but the facility of obtaining the money is the moving cause of the speculation, and the price of each commodity will advance according to the quantity of money that is brought to bear on that particular market.

8.—Motives of Bankers to issue Notes.

It has been stated, that one evil of the principle of competition is, that when one banker contracts his circulation, the neighbouring bankers increase their issue, in order to fill up the vacuum which is thus created. If this were the fact, it is difficult to conceive how the total circulation of the country could ever be reduced. The charge of excessive competition has been more directly brought against the joint-stock banks. If, therefore, the private bankers reduced their circulation, the joint-stock banks

would, of course, seize the opportunity of extending theirs. Now, how stands the fact? The average circulation of the private bankers in March, 1839, was 7,340,793*l.*, and by March, 1840, it was reduced to 6,190,306*l.* Now, upon the above principle, a large increase should have taken place in the issues of the joint-stock banks; and had we not the returns of the actual amount, we could not disprove this opinion; but on referring to these returns, we find that the joint-stock circulation in March, 1839, was 4,617,806*l.*, and in March, 1840, it was 3,895,748*l.* So far from an increase, here is a reduction; and that, too, in nearly the some proportion as that of the private bankers.

9.—Spirit of Laws—Interest of Money.

Erroneous views are often entertained of the Mosaic laws, from neglecting to consider the state of the people to whom those laws were given. It was the object of the Jewish legislator to make the Jews a purely agricultural people. The promotion of agriculture was, as Montesquieu would say, the spirit of his laws. Hence he prohibited the taking of interest for the loan of money. By this means he interdicted commerce. His design was to prevent the Israelites associating with the surrounding nations, and learning their idolatrous practices. But even Moses permitted the Jews to take interest for money lent to strangers—a circumstance which proves that the prohibition was only a political, and not a moral, precept. If the taking of interest for money were morally wrong, it would have been forbidden in all cases. But in the middle ages the political and the moral laws of Moses were confounded together, and all of them were supposed to be of perpetual obligation upon all nations. These opinions, which might have been useful in a purely agricultural state, were still indulged when a change of manners required that this country should become commercial. If we admitted the unlawfulness of taking interest for money, we might on the same principle condemn all kinds of commerce, and even all profitable investment of capital. Where is the difference between taking money for the use of money, and taking money for the use of commodities that are purchased with money? If I lay out 100*l.* in the purchase of a house, I am allowed to take rent for the use of that house. Why, then, if I lend to a friend the 100*l.* with which he purchases a house, am I to receive no remuneration? If we are not allowed to receive any money for the loan of money, why are we allowed to receive money for the loan of a house or a coach, or any other article? An exorbitant charge for interest is certainly unjust, but so is an exorbitant charge for anything else.

10.—Argumentum ad Hominem.

Although banking is unconnected with politics, and we have an utter abhorrence of all party feeling, yet we think it justifiable in contending

against those who are avowedly political partisans, to use the *argumentum ad hominem*, to argue with them upon the basis of the principles they profess to have embraced. Now, when it is proposed to grant or continue a monopoly to any banking company, we think we may fairly say to such a Government, this act would be inconsistent with your own professed sentiments. Liberalism and monopoly are two antagonist principles—you may embrace which you please, but you cannot be the consistent advocates of both. "No man can serve two masters, for either he will hate the one and love the other, or he will hold to the one and despise the other."

We will not say whether it be owing to the good sense or to the good fortune of the Conservative party, but it is a fact, that from that party the joint-stock banks have derived all their advantages. It was under a Conservative administration that the privileges of the Bank of Ireland were abridged so as to admit of joint-stock banks being established in Ireland. It was under a Conservative administration that the law was passed, in 1826, admitting the introduction of joint-stock banks into England. It was under the administration of the Duke of Wellington that the law was passed allowing banks to compound for the stamp duties on their notes and twenty-one day drafts upon London. On the other hand, it was a Liberal administration that continued the charter of the Bank of England, with all its exclusive privileges, in 1833. It was under a Liberal administration that the Minister of Finance proposed to abolish the composition of the stamp duties upon the drafts on London, and to increase the stamp duties upon the transfer of shares in joint-stock banks. Thus we find that we have derived substantial advantages from the Conservatives, while from the Liberals we have received nothing but fine speeches and hard knocks.

The following is an extract from a letter addressed, in 1826, by the late Earl of Liverpool, to the Governor and Deputy Governor of the Bank of England:—

"With respect to the extension of the term of the exclusive privileges of the Bank of England, it is obvious, from what passed before, that Parliament will never agree to it. Such privileges are out of fashion; and what expectation can the bank, under present circumstances, entertain that theirs will be renewed? But there is no reason that the Bank of England should look at this consequence with dismay. They will remain a chartered corporation for carrying on the business of banking. In that character they will, we trust, always continue to be the sole bankers of the State, and with these advantages, so long as they conduct their affairs wisely and prudently, they always must be the great centre of banking and circulation. Theirs is the only establishment at which the dividends due to the public creditor can by law be paid."

Here it is obvious that the Conservative Lord Liverpool intended only that the Bank of England should remain "a chartered corporation

for carrying on the business of banking" without any "exclusive privileges." Blessed for ever be the memory of the statesman who, in 1826, entertained these enlightened sentiments. But his mantle fell not upon his successors in office. Exclusive privileges, which were out of fashion with the Conservatives in 1826, came into fashion with the Liberals in 1833, and Lord Althorp then continued the Bank of England charter, with all those exclusive privileges which Lord Liverpool had so strongly condemned.

11.—Dispositions of Shareholders.

It is natural to all shareholders to wish for large dividends upon the capital they have invested. Hence they applaud most loudly those directors who contrive to declare the highest dividends, to make the largest bonuses, to keep up the shares at the highest premiums in the market, and then to distribute more shares at par. The directors, knowing these to be the feelings of the shareholders, very naturally attempt to gratify them. But those transactions that yield a large immediate profit are either attended with a risk of loss, or a lock-up of capital. But the profit is immediate, the danger is remote. With the applauses of the shareholders ringing in their ears, the directors become too giddy for reflection, and recklessly engage in a course of action that ends in ruin. This evil is increased when there are two joint-stock banks of about equal strength in the same place. The spirit of rivalry is natural to man. The competition between the two boards of directors is not which bank shall be governed with the greatest prudence, and with the strictest regard to sound banking principles. But which shall produce the most glowing reports—which shall declare the largest dividends—and which shall keep up its shares at the highest price in the market. A strong competition is carried on, which ends in the destruction of one or both of the rival banks. Such feelings are said to have prevailed at Manchester; and at that place several boards of directors were presented with services of plate, by their respective shareholders, within a short time of the stoppage of their banks.

PART III.

THE PRINCIPLES OF REASONING—*continued.*

We have now gone through the second part of our book. In the first, you will recollect, we considered the Introduction to Reasoning. In the second part, we considered the Principles of Reasoning. In this part, we are going to consider still further the principles of reasoning. But these principles are of a different kind. In the former part the principles had a direct relation to the subject itself; we took the subject, and considered its attributes, its parts, its kinds, its causes, and its effects. In this part we shall consider the subject in its relation to other things. You may therefore, if you please, call the principles we have discussed, the *internal* principles of reasoning; and those we are going to discuss, the *external* principles of reasoning.

These we shall consider in separate sections, under the following heads:—Section 1. Reasoning from Examples. 2. Reasoning from Analogy, Comparison, and Contrast. 3. Reasoning from Parables, Fables, and Proverbs. 4. Reasoning from Written Documents. 5. Series of Reasonings.

SECTION I.

REASONING FROM EXAMPLES.

In reasoning from examples we adduce examples in proof of the propositions we desire to establish.

This mode of reasoning from examples is called by scholastic logicians *induction,* and is opposed to *deduction.*

We will, then, illustrate the difference between reasoning by *in*duction and reasoning by *de*duction. You have observed

an individual come to poverty by a dishonest course of action, and another arrive at wealth by a life of rectitude; and you remark, "Honesty is the best policy." Here you reason by induction. From these individual cases you gather a proof of the general maxim, "Honesty is the best policy." But suppose a person should ask your advice how to act in a case wherein strict integrity might appear to be less advantageous than a more crooked procedure, and you observe to him, "Honesty is the best policy;" here you reason by deduction. You apply the general principle to an individual case; you reason on the principle of genus and species. These two kinds of reasoning are just the reverse of each other. When from one or more examples you infer a general principle, that is called induction, or reasoning from examples. When from the general principle you infer an individual case, that is called deduction, or reasoning from genus and species. Induction is reasoning from particulars to generals, and deduction is reasoning from generals to particulars.

But you ask, How can I infer a general proposition from a small number of examples? Is it not a rule, that "generals cannot be inferred from particulars?" Very true. You cannot infer generals from particulars, unless you have reason to believe that all the particulars are alike. Our reasoning here must depend upon the uniformity of the laws of nature. When the law is uniform, we can infer generals from particulars, because we know that all particulars are in fact generals. This is the case most frequently in the physical sciences. All animals of the same species are alike. I see that a horse has four legs: I may assert then that every horse in the world has four legs, though I have not seen them all. I decompose a glass of water, and find it is formed of oxygen and hydrogen: I therefore assert that all water, everywhere, is composed of oxygen and hydrogen. But when this constant uniformity does not exist, I cannot reason so conclusively; and my reasonings will be weaker and weaker in proportion to this want of uniformity; and hence we shall have to descend from certain reasonings, to probable reasonings,

and then lower, to doubtful reasonings, until at last our examples may be so few or so conflicting, that we may have no foundation for any reasoning at all respecting the matter in dispute.

Some writers make a distinction between reasoning from example and reasoning from induction,—the example is one, induction is more than one. But there seems no ground for this distinction. The mode of reasoning is the same; the only difference is in the degree of proof. The greater the number of examples, of course, the greater is the amount of evidence in proof of the general proposition.

In reasoning then from genus and species, we infer, you perceive, individual cases from universal rules. In reasoning from examples, we reverse our mode of reasoning; and from one or more examples we prove the general rule. We use the inductive method in regard to the physical sciences, such as astronomy, chemistry, &c. We see several instances in which fire melts lead; we infer it will always do so; and when we are satisfied that this is the case, we call it a law of nature. It was also by this method that philosophers have discovered the laws of astronomy. By the same rule we discover the laws of medicine: if a medicine cures in a great number of cases, we infer that it will always cure in similar cases. In the science of morals, we also observe that certain vices lead to misery; and we infer that vice will always lead to misery, and virtue to happiness. In politics, we observe in the history of the world what institutions and what laws have conduced to the happiness of the people; we gather together these instances, and thus form maxims for the government of nations. In political economy we observe, or should observe, the same practice. But political economists have too often wandered into other paths. Instead of deducing their principles from facts, they have first formed their theories, and then made facts bend to their theories. Hence we have theories of population, theories of rent, theories of the currency, and theories of taxation, advanced and supported in a way more in accordance with the Aristotelian than with the Baconian system of philosophy.

The examples I have hitherto brought before you have been examples of persons. But there is another kind of examples you will often meet with in your reading After an author has laid down a general principle, he will state an individual case by which that principle is proved or illustrated.

"*Some labourers are paid higher than others.* A carpenter earns more than a ploughman, and a watchmaker more than either; and yet this is not from the one working harder than the other.

"*And it is the same with the labour of the mind as with that of the body.* A banker's clerk, who has to work hard at keeping accounts, is not paid so high as a lawyer or a physician.

"You see, from this, that the rate of wages does not depend on the hardness of the labour, but on the *value* of the work done."—*Easy Lessons on Money Matters.*

Reasoning by example is in great use among lawyers. One chief mode of reasoning with them is by what is called a case in point, that is, an example in point. When a case is in dispute, the plan is to show that a case similar to the present has already been decided. But the example or case adduced, will not, of course, be the same in all its circumstances as the case under trial. If so, there would have been no ground for a lawsuit, as the point would then have been already decided. But it is the object of the advocate to show that the case adduced establishes a principle, and that this principle thus established will apply to the case under consideration.

When your opponent tries to apply a general principle to an individual case, you have two methods of reply. You may either deny the general principle, or deny that it is applicable to the case under consideration. If you adopt the first mode, you will endeavour to show that the general principle is untrue, or unjust, or inexpedient, according to the object you have in view.

Sometimes an individual case is adduced for the purpose, not of establishing, but of overthrowing a general principle. And, as examples can often be adduced on both sides of a question, we shall have to balance one set of examples against

another, in order to judge of the probability of the case under consideration. You doubt whether you will buy any shares in a Railway Company. Your friend, who is a director, tells you of several cases in which parties have become wealthy by taking shares in such companies. Your wife tells you of other cases in which the parties have been ruined. Here you must decide according to what is called "the doctrine of chances," or more properly the doctrine of probabilities.

Examples are often employed in conversational discussion. In this case they usually assume the form of anecdotes. All anecdotes are arguments. They all prove something, or may be so applied as to prove something; and they should, when related, be associated with the principle they are adapted to prove. "A writer of penetration," says Disraeli, "sees connexions in literary anecdotes which are not immediately perceived by others: in his hands anecdotes, even should they be familiar to us, are susceptible of deductions and inferences which become novel and important truths. Facts of themselves are barren: it is when these facts pass through reflections, and become interwoven with our feelings or our reasonings, that they are the finest illustrations; that they assume the dignity of 'philosophy teaching by example;' that in the moral world they are what the wise system of Bacon inculcated in the natural knowledge deduced from experiments—the study of nature in her operations. 'When examples are pointed out to us,' says Lord Bolingbroke, 'there is a kind of appeal, with which we are flattered, made to our senses as well as to our understandings. The instruction comes then from our authority—we yield to fact when we resist speculation.'"—*Curiosities of Literature.*

As an anecdote records only one example, it may not of itself amount to proof; but it may be an additional item in the accumulated proofs by which a certain proposition is established. All travellers relate anecdotes denoting the peculiar characters of the people among whom they have travelled. This is, in fact, the chief kind of evidence we can have upon the subject. Travellers into the East have recorded many anecdotes tending to explain some of the passages of

the Holy Scriptures. On this ground "Burder's Oriental Customs" and the writings of Dr. Kitto are exceedingly valuable. Some anecdotes refer only to individual character. You have an abundance of them in Boswell's Life of Johnson.

It is well to store our minds with anecdotes. But every anecdote should be associated with some principle that it is adapted to prove or to illustrate. Then the recollection of the anecdote will remind us of the principle, and the recollection of the principle will remind us of the anecdote. When you relate them, they should be related in illustration of the principle that may be the subject of the conversation, and introduced with propriety and good taste. Do not tell *long* anecdotes, as they will become tedious. If any other person is about to relate an anecdote that you know, do not interrupt him, but observe how he relates it, that you may learn to relate it better yourself. There is an art in this as in other things. It is generally best to begin with the time or occasion when the event occurred, then the persons and then the actions. The gist or point of the anecdote should always be related last. To learn how anecdotes may be related argumentatively, read Disraeli's 'Curiosities of Literature.'

The following illustrations of this principle of reasoning are taken from the author's writings on Banking :—

1.—The Bank of Amsterdam.

The bank of Amsterdam was founded in the year 1609. It was occasioned by the vast quantity of worn and clipped coins then in circulation, in consequence of which the value of the currency was reduced above nine per cent. below that of good money fresh from the mint. The bank received these deficient coins at nearly their intrinsic value, and made all its issues in coin of the standard weight and fineness. At the same time a law was made that all foreign bills of exchange should be paid in bank money. This law raised the value of bills on Holland in foreign countries, and compelled every merchant to keep an account at the bank, in order that he might at all times have legal money to pay his foreign bills. The premium (called the Agio) on bank money was regulated by the market price of gold, and was subject to considerable fluctuations. To prevent the gambling to which these fluctuations gave rise, the bank at length determined to sell bank money for currency at five per cent. agio, and to buy it again at four per cent. From this and

other sources of profit the bank is supposed to have gained a considerable revenue. It was the entire property of the city of Amsterdam, and was placed under the direction of four burgomasters, who were changed every year.

The Bank of Amsterdam was the model on which were formed most of the European banks now in existence; but they have varied very considerably from each other, according to the circumstances of the respective countries in which they have been established.

2.—The Bank of England.

The Act of Parliament by which the bank was established is entitled "An act for granting to their Majesties several duties upon tonnage of ships and vessels, and upon beer, ale, and other liquors, for securing certain recompences and advantages in the said act mentioned, to such persons as shall voluntarily advance the sum of fifteen hundred thousand pounds towards carrying on the war with France." After a variety of enactments relative to the "duties upon tonnage of ships and vessels, and upon beer, ale, and other liquors," the act authorizes the raising of 1,200,000*l.* by voluntary subscription, the subscribers to be formed into a corporation, and be styled "The Governor and Company of the Bank of England." The sum of 300,000*l.* was also to be raised by subscription, and the contributors to receive instead annuities for one, two, or three lives. Towards the 1,200,000*l.* no one person was to subscribe more than 10,000*l.* before the first day of July next ensuing, nor at any time more than 20,000*l.* The corporation were to lend their whole capital to government, for which they were to receive interest at the rate of eight per cent. per annum, and 4,000*l.* per annum for management; being 100,000*l.* per annum in the whole. They were not allowed to borrow or owe more than the amount of their capital, and if they did so, the individual members became liable to the creditors in proportion to the amount of their stock. They were not to trade in any "goods, ware, or merchandise whatsoever;" but they were allowed to deal in bills of exchange, gold or silver bullion, and to sell any goods, wares, or merchandise upon which they had advanced money, and which had not been redeemed within three months after the time agreed upon. The whole subscription having been filled in ten days, a charter was issued on the 27th day of July, 1694.

3.—The Bank of Ireland.

The Bank of Ireland was established by an Act of Parliament passed in 1782, 21 and 22 Geo. III. c. 16. The following are the provisions of this Act. The capital was 600,000*l.*, which was lent to Government at four per cent. No one person was permitted to subscribe more than 10,000*l.* If the bank incurred debts to a greater amount than their capital, the subscribers were answerable in their private capacity to the

creditors in proportion to their subscriptions. The bank were not either to borrow or lend money at a higher interest than five per cent., nor to engage in any business but banking. The stock to be transferable, and deemed personal estate, and as such to go to the executors of the holders and not to their heirs. No transfer of bank stock to be valid, unless registered in the bank books, in seven days from the contract, and actually transferred in fourteen days; the charter to expire at twelve months' notice after the first day of January, 1794, and repayment of all sums due by the Government to the bank.

Both in its constitution and government the Bank of Ireland closely imitated the Bank of England; and it has produced in Ireland most of the advantages and evils which that establishment has produced in this country. It has supplied this country with a currency of undoubted solidity; it has supported public credit, it has granted facilities to trade, and it has assisted the financial operations of the government. On the other hand, its prohibitory clause necessarily led to the formation of many private banks, whose failure was the cause of immense wretchedness to all classes of the population.

4.—The Provincial Bank of Ireland.

The Provincial Bank of Ireland was formed under the statute 6 Geo. IV. c. 42. Few banks have, in so short a time, advanced to so high a degree of prosperity. The circumstances of Ireland, at that period, were friendly to the growth of such an establishment. The recent abolition of the Union duties, and the introduction of steam-boats, had given a stimulus to the trade between the two countries, while nearly all the banks in the south of Ireland had been swept as by a whirlwind from the face of the land. The operations of the bank were also facilitated by the assimilation of the currency, and the measures taken by the Government and the Bank of Ireland, to prevent those fluctuations in the exchanges which had previously existed. But the prosperity of this bank must be attributed chiefly to the wisdom and prudence manifested in its constitution and in its subsequent government. The capital was raised chiefly in England, and London was consequently made the seat of government. The board of directors was composed of merchants and statesmen, and the latter were taken from the leading men of the two parties into which Ireland was then divided. The local governments of the respective branches in Ireland were composed of directors possessing local knowledge and influence, and of managers selected for their experience in banking, and the manager had a veto upon the decision of the board. An inspector was appointed to visit the branches, and to report to the London office.

At the same time the bank had considerable difficulties to contend against. Property in Ireland was considered insecure; political and religious feelings often interfered with matters of business; the habits

of the people were not commercial; and the country had suffered so severely from private banking, that confidence was not easily acquired for a new company, the members and constitution of which were but imperfectly known. Before these difficulties had been completely overcome, the bank became involved in a competition with branches of the Bank of Ireland, and exposed to sudden demands for gold arising out of political events.

5.—The London and Westminster Bank.

1. The first advantage is, that the inhabitants of London and Westminster will have a secure place for their deposits.

It appears that within the ten years ending in 1831, the private deposits in the Bank of England advanced from 1,326,020*l.* to 5,201,370*l.*, and it is understood that since that period they have still farther increased. This increase must have been drawn from the deposits in the private banks. Hence it is evident that a large and independent portion of the inhabitants of London entertain some degree of suspicion of the private bankers; and it may fairly be assumed, that this suspicion is not confined to those who have actually removed their accounts to the Bank of England. There are, probably, others who would also remove their accounts, could they depend upon receiving from the Bank of England the same accommodation which they receive from their present bankers. The London and Westminster bank are not called upon to state, whether this suspicion is well founded. It is sufficient for them to know that it exists. Seeing, then, that a portion of the London community, so large and respectable as to hold in their hands five millions of surplus cash, are unwilling to trust their money in the hands of the private bankers, the question occurs, whether it is not due to public opinion to establish a bank which shall possess unbounded confidence.

The country bankers state, in their memorial to Earl Grey, in 1833, that "The number of London banks that have failed, is believed to be relatively greater, and the amount of their debts relatively larger, than that of country banks." If, then, joint-stock banks are established in the country, in consequence of the failure of the private banks, there seems a propriety in establishing joint-stock banks in London for the same reason.

2. A joint-stock bank in London will afford a place of security for the lodgments of country banks.

The failure of a London banking house always injures, to a certain extent, the country banks with which it may have accounts. As a country bank must keep a balance in the hands of the London agents to meet their notes and bills, a certain loss is sure to be incurred. The public often apprehend that this loss is to a considerable amount; and hence a run upon the country bank. In the year 1825, the failure of

Sir Peter Pole & Co. occasioned a run upon their country correspondents, and hence arose a general run upon all the banks in the country.

If a country bank should have been in the habit of borrowing of their London agents, the sudden stoppage of these supplies may have disastrous results. At all events, the country banker has to seek new agents —to issue new notes—or, to paste the name of another London banker upon the old ones; whereby they become unsightly, and circulate less freely. It must, therefore, be an advantage to a country banker to have a London agent that cannot fail. The country bankers themselves, in their memorial to Earl Grey, presented previous to the passing of the late Act, comment on the inconsistency of the government in encouraging joint-stock banks in the country, upon the ground of the insecurity of the country banks, and at the same time not allowing those very country banks the same degree of security for their own deposits in London.

3. Another advantage resulting from the establishment of a joint-stock bank in London is, that it will allow the depositors to participate in the profits of their own accounts, by becoming shareholders in the bank.

If all the shareholders in a joint-stock bank were depositors, and all the depositors were shareholders, the bank would resemble a mutual insurance company, wherein the profits upon the insurances would be returned to the parties who had insured. All the profits of a bank of deposit are derived from the use of the money lodged by the depositors. And if the depositors were shareholders, the profits made on these accounts would be distributed to the same parties in the form of dividends upon their shares. The profits which are shared by a few partners in a private bank are distributed among several hundred partners in a joint-stock bank.

6.—The Banks of America.

The first settlers in America had not a sufficient quantity of gold and silver to serve as a circulating medium. Hence other materials, such as tobacco or corn, were in some of the States occasionally employed as money. In the year 1618, Governor Argall, of Virginia, ordered "that all goods should be sold at an advance of twenty-five per cent., and *tobacco taken in payment at three shillings per pound,* and not more or less, on the penalty of three years' servitude to the colony." In 1641, the General Court of Massachusetts "made orders about payment of debts, setting corn at the usual price, and making it payable for all debts which should arise after a time prefixed." In 1643, the same General Court ordered that Wampompeag (an article of traffic with the Indians) should pass current in the payment of debts to the amount of forty shillings, the white at eight a penny, the black at four a penny,

except for country rates. In Virginia, the value of a wife even was estimated in tobacco. The following extract is taken from Holmes' American Annals:

"The enterprising colonists being generally destitute of families, Sir Edward Sandys, the treasurer, proposed to the Virginia Company to send over a freight of young women to become wives for the planters. The proposal was applauded, and ninety girls, 'young and uncorrupt,' were sent over in the ships that arrived this year (1620), and the following, sixty more, handsome and well recommended to the Company for their virtuous education and demeanour. The price of a wife at the first was *one hundred pounds of tobacco*; but as the number became scarce, the price was increased to *one hundred and fifty pounds*: the value of which in money was three shillings per pound. This debt for wives it was ordered should have the precedency of all other debts, and be first recoverable."

The Rev. Mr. Weems, a Virginian writer, intimates that it would have done a man's heart good to see the gallant young Virginians hastening to the water side, when a vessel arrived from London, each carrying a bundle of the best tobacco under his arm, and taking back with him a beautiful and virtuous young wife.

The Bank of the United States was founded by Congress; but all the other banks derived their charter from the government of the states in which they are established. They are all joint-stock companies, as no private banking is allowed. The chartered banks are subject to various restrictions, according to the enactments of the different states; and their restrictions are often such as are unknown in this country. Generally no shareholder is answerable for the debts of the bank, beyond the proportionate amount of his shares. In some cases the government retains the option of subscribing an additional number of shares, and of appointing a corresponding number of directors. And in others, the banks are under obligation to advance a certain sum to the government whenever required. Somes states have laid a tax of ten per cent. on the dividends paid on the stock of each bank. The banks are sometimes restricted not to incur debts beyond a certain proportion to their capital; and in all the states the banks are now required to make periodical returns to the government.

The case of America has been so often adduced, as exhibiting the evils of a free system of banking, that it seems to require a special consideration.

It strikes us as extraordinary that, to prove the evils of free trade in

banking, we are directed to a country in which free trade in banking has never existed. Neither an individual nor a company can carry on banking in America without the permission of the state. All the banks in America are chartered banks, and differ from our joint-stock banks in many particulars, and especially in the limitation of the liability of the shareholders. Now admitting that the system of chartered banks has failed in America, it seems very illogical to infer that consequently a system of unchartered joint-stock banks must fail in England. But it is contended that the history of banking in America shows the evil of having numerous banks, and hence similar evils must arise from having numerous banks in England. To maintain this argument, it should be shown that the banks in the two countries are of the same kind, and that the circumstances of the two countries, as far as they bear upon banking, are similar. But is this the case?

The argument presumes, too, that in case of free banking the number of banks would be very great. Are we justified in supposing that this would be the case? Theory exclaims "yes;" experience whispers "no." The numerous banks in America are not the result of free-trade, but are the result of the acts of the Legislature. The State Legislatures have thought proper to give a large number of charters, and of course there is a large number of banks. Had the charters been fewer, and required higher paid-up capitals, the banks would have been larger and more respectable. The number of banks in England, too, have been the result of the interference of the Legislature. In the renewal of the charter of the Bank of England in 1708, it was enacted, that no other bank, having more than six partners, should have the privilege of issuing notes. As the growing trade and wealth of the country required banks of some sort, and as banks having more than six partners could not be formed, a great number of banks, each not having more than six persons, rose into existence as they were required by the increasing trade and wealth of the country. Hence, instead of having a small number of large banks, we have had a large number of small banks.

In adducing instances from the history of banking in America, some of the witnesses are guilty of another fallacy. When they wish to prove the expediency of a sole bank of issue in England, they adduce the instance of the former Bank of the United States. Readers unacquainted with the subject are led to suppose that the Bank of the United States was the sole bank of issue in America. Had this been the fact, it would have been, as the lawyers say, a case in point. But how stands the fact? This bank had no more exclusive privileges than the Bank of Scotland. It was merely the government bank, and it had the power of opening a branch in every state of the Union. With regard to the issue of notes, it had no exclusive privileges, but was exposed to fair competition with the other banks.

The case of America suggests to us a striking difference between theory and experience. The theory of American banking appears very rational. There we behold the State with maternal care watching over the interests of the banking institutions, prohibiting all except those to which she herself may give birth; to those she gives a charter as a special mark of her affection, prescribing the amount of the capital, the extent of their issue, the sums of gold to be kept in reserve; and to insure obedience to her orders, she requires ample returns, and sends her officers at stated periods to examine the amount of their treasure. What a beautiful theory! Had it never been tried, how loudly would it be applauded. Let us look at another theory. Suppose it were now proposed for the first time to pass a law permitting any one individual to set up a bank and issue as many notes as he pleased, would not the plan be condemned as absurd? Should we not be told that banks would become as numerous as gin-shops, and that every pauper and swindler in the community would be issuing "promises to pay," which would never be performed? Yet this was the case in London in 1844. Any individual, or any number of individuals not exceeding six, might take out a licence, and issue as many notes as they pleased, even in London. Yet where were the practical evils of this state of the law? Some people assert that no evils arose because the number of partners was limited to six; but if this privilege were extended to partnerships of more than six persons, then dreadful indeed would be the evils that would come upon the community.

7.—Examples of a Full Currency.

When we have what is called a full currency, we are of course in a state of high apparent prosperity. So we were in 1824, 1835, and in 1838; but what followed?—the distresses of 1825, of 1836, and of 1839. A prosperity based upon the state of the currency is sure to fall to the ground, as soon as the tide shall turn. In the year 1838 (which the year 1843 much resembled), the surplus currency found vent in American securities, and millions of the national wealth were lost. Unless our system of management be placed upon a sound basis, as surely as the future shall resemble the past (and when it shall cease to do so history will be of no use to us), so surely will a reaction take place, and produce effects similar to those that occurred in the years 1836 and 1839.

8.—Examples of Fluctuation in Prices.

Now we contend that the perpetual fluctuation of prices is a great evil. We will specify a few cases. Look at it with reference to trade. The profits of trade depend upon the difference between the buying and the selling prices of commodities, and all the calculations of trade are founded upon this difference of price. But a merchant may import a cargo of goods, and when they arrive the circulation may be in a state of contraction, and the selling price of his goods may be so much below his calculation, that he may be involved in a serious loss. A tradesman may lay in a stock of goods in his shop with the fairest prospect of selling them at a profit, but the foreign exchanges become unfavourable, and the prices of his goods fall so much below the prime cost, that he is driven into the *Gazette*. A manufacturer may erect new mills upon the calculation of deriving a large profit from his increased business; but the rate of interest is advanced, and he finds that in proportion as he extends his business he increases his losses. He, therefore, dismisses his workmen, and discontinues his operations. And this is not the worst. Even in cases where the trader would be willing to sell at losing prices, he cannot effect sales, for his customers have no money with which to buy. The system is also exceedingly injurious to the construction of all public works. If a dock, a bridge, or a railway is to be constructed, it is impossible to calculate the cost, for neither materials nor labour remain at the same price for two years together; and let the parties who engage in the undertaking be ever so respectable, it is impossible to say whether in a year or two hence they will be in a condition to respond to the calls for raising the necessary capital.

9.—Examples of Failures of Joint-Stock Banks.

It will assist us in forming a correct judgment as to the principles on which joint-stock banks ought to be administered, if we take a view of those banks that have fallen, and notice the causes to which their failure may be assigned. In investigating these causes, we shall find that the disasters which have befallen joint-stock banks have arisen, not from any unsoundness in the principles of joint-stock banking, but purely from mal-administration. It was predicted by their opponents that they would be ruined by the excessive issue of their notes; but the banks that have failed have been chiefly those that did not issue notes. It was stated that they would be ruined by carrying on an extensive business with a small capital; but among the banks that have stopped have been some of the largest capital. It was supposed they would be ruined by unprincipled men getting to be directors, who, having no property of their own, would care little about squandering the property of others. But the fallen banks are chiefly those which were governed

by honourable men; and the greatest sufferers have been the directors. Nor can it be said that the joint-stock banks have made their losses by engaging in speculations unconnected with banking. Private bankers have done so. But joint-stock banks are confined by their deeds of settlement to the business of banking. Nor has it appeared—except, perhaps, in the Isle of Man Bank—that they have violated their deeds in this respect. To what, then, must we ascribe the failure of so many joint-stock banks? We reply, To mal-administration; or, in other words, to bad management. And this leads us to inquire, In what way has this mal-administration been exemplified? What are those erroneous principles that have led to these fatal results? Without attempting to enumerate them all, we will endeavour to specify a few of the most prominent.

I. Taking the unsound business of other banks.

One cause of the rapid extension of joint-stock banks in 1836 was the "merging" of numerous private banks. I obtained from the managers the names of these private banks, which were printed as an appendix to the "History of Banking in America," published in 1837. This list was afterwards extended, and inserted in the *Banker's Magazine* for 1844. Thus it appears that 138 private banking establishments have merged into joint-stock banks. Some of the private banks sold their business after the joint-stock banks had come into operation. Others formed a joint-stock bank upon the private bank, the senior partner often becoming a director, and the junior partner the manager, of the new bank.

In by far the majority of cases, these unions, or "merges," were advantageous to both parties. The private banks obtained the value of the business they had surrendered, and an interest in the future prosperity of the bank they had joined. On the other hand, the new joint-stock bank acquired a business already formed, and also obtained the advantage of the practical knowledge and superintendence of experienced bankers.

But in some instances the bargain was a disastrous one for the joint-stock bank. The bad and overdrawn accounts were taken without due examination, and soon afterwards occasioned considerable loss. The loss of the purchase-money was generally by far the smaller loss of the two. A joint-stock bank in the west of England purchased a private bank in a country town for a large sum, and took the overdrawn accounts without a guarantee. These accounts were considered good at the time, but a few years afterwards the parties failed, and the joint-stock bank lost considerably. A joint-stock bank gave to the Northern and Central Bank the sum of 6,500*l.* for their business at Leeds, after they had stopped. The accounts they took over were afterwards the occasion of great loss. The Isle of Wight Joint-stock Bank was formed upon a private bank, but a few months only had elapsed when they

found they were insolvent from the losses that would arise from the bad accounts they had accepted. They immediately determined to wind up, and transfer their business to the National Provincial Bank of England. Other instances might be adduced of joint-stock banks having been founded on private banks which are now supposed to have been, at the time, in a state of solvency.

SECTION II.

REASONING FROM ANALOGY, COMPARISON, AND CONTRAST.

ANALOGY is different from either deduction or induction. The word analogy means resemblance. By "reasoning from analogy" we mean, reasoning about one thing from its resemblance to another thing.

The following are examples of this kind of reasoning:—

"I suppose it will be allowed, that, to advance a direct falsehood in recommendation of our wares, by ascribing to them some quality which we know that they have not, is dishonest. Now, compare with this the designed concealment of some fault, which we know that they have; the motive in these two cases is the same, and the prejudice to the buyer is also the same.

"The practice of passing bad money is sometimes defended by a vulgar excuse, that we have taken the money for good, and must therefore get rid of it. Which excuse is much the same as if one who had been robbed on the highway should imagine he had a right to reimburse himself out of the pocket of the first traveller he met."—*Paley's Moral Philosophy.*

Analogies are of two kinds. They may denote a resemblance between two things themselves, or merely a resemblance between the circumstances in which they are placed. Thus, when Sydney Smith argues that dispositions are hereditary, from the analogy between men and animals, the resemblance is between the things themselves. But when he tells us we ought not to decry the science of Moral Philosophy, inasmuch as several other sciences are liable to the same objections, the analogy is between the circumstances in which these sciences are placed. We are thus liable to make

two mistakes. When we find there is an analogy between the things themselves, we may erroneously infer there is an analogy in their circumstances. Or when we find an analogy in their circumstances, we may infer there is an analogy in the things themselves.

The first error is exhibited very often in the analogies drawn *between men and animals.* There is, no doubt, a resemblance between reason and instinct. Hence some have inferred that there is an analogy between men and animals *in their rights with reference to each other.* Paley and others have contended on this ground that men have no right to kill animals for food. We think they are incorrect in their analogies.

The second error is when, from an analogy in circumstances, we infer *an analogy in the things themselves.*

Archbishop Whately defends logic by the analogical mode of reasoning; and when he confines his analogies merely to the *circumstances* in which logic resembles other sciences, his reasoning is generally conclusive. But sometimes he goes beyond this, and finds, or fancies, analogies between the *nature* of logic and that of other sciences to which it bears no resemblance. For example, he finds an analogy between logic and chemistry.

Another kind of fallacious reasoning is when the analogy is merely verbal, or metaphorical, and there is *no real resemblance* between the things, or their circumstances.

Analogy is the foundation of nearly the whole of our figurative language. Lindley Murray observes that "figures of speech frequently give to us a much clearer and more striking view of the principal object than we could have if it were expressed in simple terms and divested of its accessory idea. By a well-chosen figure even conviction is assisted, and the impression of a truth upon the mind made more lively and forcible than it would otherwise be. We perceive this in the following illustration of Young—'When we dip too deep into pleasure we always stir a sediment that renders it impure and noxious:' and in this instance, 'A heart boiling with violent passions will always send up infatuating

fumes to the head.' An image that presents so much congruity between a moral and a sensible idea serves like an argument from analogy to enforce what the author asserts, and to induce belief."

An analogy means a relation or agreement between two or more things, which in other respects are entirely different. But when there are several points of agreement, it is not then an analogy, but a comparison.

Comparison is a principle of extensive use in reasoning. In deliberating upon any step we are about to take, we make a comparison between the good and the evil effects it is likely to produce. We make comparisons between different men, and different qualities, and different actions, and between the laws and customs of different countries; and we approve or disapprove, according to the award of our judgments. And indeed our descriptions of persons, places, and things, consist chiefly of points of comparison with other persons, places, and things.

In reasoning from analogy or comparison, if the case to be proved appears to be stronger even than the case with which it is compared, the analogy is called by scholastic logicians, an *argumentum à fortiori*, that is, "a stronger argument."

This kind of argument is often denoted by the words "How," "How much more," or "How much rather."

The following *à fortiori* argument was used by the Hon. Joshua R. Giddings, Member of Congress for the state of Ohio, with reference to the Fugitive Slave Bill. This bill requires the inhabitants of the free states to assist in apprehending the fugitive slaves, and delivering them back to the state from which they had escaped:—

> "The man who shall seize a slave upon the African coast is by our law consigned to the gallows, and deemed unworthy of an existence among civilized, and even barbarous people; but *how much greater* must be the guilt of him who seizes the enlightened and intelligent Christian, one who holds the same religion, and trusts in the same salvation as himself, and riveting the cold iron upon his trembling limbs, sends him back to bondage and suffering!"

Sometimes we compare two things together, not so much to

discover wherein they agree, but wherein they differ; and we rest our argument upon the contrast.

The following illustrations of this principle of reasoning are taken from the author's writings on banking:—

1.—Analogy between Nations and Public Companies as to their Moral Responsibility.

Public companies are analogous to other collective bodies who are acknowledged to be moral agents.

It will not be denied that a *nation* may declare an *unjust* war—may carry it on in a *cruel* manner—may treat a conquered nation with *oppression*, or may conduct a treaty of peace with *duplicity* and *fraud*. Nor will it be denied, that a nation may become immoral by the extinction of moral feeling in its rulers, and throughout the population.

As, then, *large bodies of men, like nations*, are rewarded or punished in their collective capacity, for their virtuous or vicious actions, it would seem to follow, *that smaller bodies of men, like public companies*, may be *subjected to the same moral discipline*.

A public company, like a nation, is composed of a number of individuals who have a government for the regulation of their affairs, and whose acts are considered as the acts of the whole body. It is true that a public company is composed of a smaller number of persons than a nation, but that cannot affect the moral character of its actions. It is also true, that while a nation must always act through its government, a public company may, and often does, at the general meeting of its shareholders, act independently of its government; but neither can this alter its moral agency, for whether the form of government be aristocratical or democratical, the duties of a nation, or of a public company, remain the same.

In opposition to this doctrine, it may be contended that, to render public bodies of men responsible in their collective capacity, would be destructive of personal or individual responsibility. But this is not the case. A nation may be punished for its national crimes, and yet the individual who may have caused these crimes, may sustain an individual punishment. Thus Jeroboam, Ahab, and other kings of Israel, were individually punished, while, at the same time, the nation was also punished in its collective capacity. So a public company may be punished or rewarded for its actions, while, at the same time, any individual who caused these actions, may also be personally rewarded or punished. It may too be objected, that if a public company is to be punished, as such, for its acts, then all the partners would share in the punishment, though many of them may have been quite innocent of the crime. To this we answer, that the same objection would apply to the doctrine of national responsibility. It is not possible in the case of a

large body of men, for every individual to take part in its actions. The act of the authorized government, or of the majority of the members, must be regarded as the act of the whole community, and every individual must share in the prosperity or adversity resulting from such acts.

2.—Comparison between the Pressures of 1836 and 1839.

It may be useful to notice the differences between the pressure of 1836 and that of 1839. If we measure the intensity of the pressure by the difference between the largest and the lowest stock of gold in the Bank of England, the former pressure will range from 7,801,000*l.* to 4,032,000*l.*, and the latter from 10,126,000*l.* to 2,525,000*l.* In the pressure of 1836, one joint-stock bank, a London private bank, two country private banks, three large American agency houses, and a great many respectable merchants, stopped payment. In the pressure of 1839, there was scarcely a failure until the month of December, and then only among the second class of traders.—In the pressure of 1836, the prices of nearly all commodities fell considerably, and almost immediately. In the pressure of 1839, the prices of most commodities remained for a length of time nearly the same.—In 1836, the Bank of England did not raise their rate of interest above 5 per cent. In 1839, the rate of interest upon both discounts and loans was raised to 6 per cent.—In 1839, the Bank gave notice that they were willing to sell the dead weight, and they made arrangements for borrowing 2,500,000*l.* sterling from the Bank of France. In 1836, the bank adopted neither of these measures.—In 1836, the Bank of England rejected all bills drawn or endorsed by joint-stock banks of issue. In 1839, they rejected also all bills drawn and endorsed by private banks of issue.

3.—Contrast between the Circulation of the Bank of England and that of the Country Bankers.

The check upon the private bankers is, that their circulation cannot be issued to excess; whereas if you had a bank which should issue notes for so much gold, then every time there was a favourable course of exchange, there would be a large issue of notes, which notes would necessarily reduce the rate of interest, lead to speculation, and turn the exchanges again by causing investments to be made in foreign countries. Now, as issues are at present conducted, bankers are under several checks which would not apply to such a bank; for instance, the check of the interchange with each other of their different notes once or twice a week, and the check of having their notes payable on demand; whereas the notes of such a bank as you suppose would not be diminished except when gold was wanted to be sent abroad. Another check is the practice of giving interest upon deposits, by which all the surplus circulation is called in and lodged with the banks; now, such a

bank as you have supposed would not be under the control of those checks, and it would be under the necessity of increasing the circulation whenever the exchange became favourable; and we know by experience, that the most sure way of making the exchanges unfavourable is a previous excessive issue; that previous excessive issue would necessarily arise, on the principle you have supposed, every time the exchange was favourable.

With regard to the Bank of England, who have the power of issuing their notes in exchange against bullion, in the purchase of Exchequer bills and Government stock, it is quite clear that notes put into operation in that way, being thrown in a mass upon the previously existing state of trade, will have the effect of raising prices and reducing interest, and turn the exchanges; but if notes are issued merely to pay for transactions that have previously taken place, and are drawn out by the operations of trade, as is the case with the issues of the country banks, those notes will have no such effect.

4.—Comparison between the Country Bankers and the Branches of the Bank of England.

The extension of the branches of the Bank of England in the year 1827 occasioned great dissatisfaction among the country bankers. The establishment of rival banks in their own neighbourhood, was a circumstance that the country bankers could not view with indifference. They declared that the Bank of England, and not themselves, had been the cause of the previous spirit of speculation; that the Bank of England, by their advances to government and loans on mortgage, had made excessive issues, and that now to extend their influence, at the expense of the country bankers, was to reward the guilty, and to punish the innocent. The country bankers had been accustomed to charge five per cent. on the bills they discounted, and at some places five or six shillings commission besides the discount, but the branches of the Bank of England charged only four per cent without any commission. The country bankers were of course compelled to do business on the same terms, or to permit their customers to go to the branch. The chief advantage the country bankers possessed over the branch banks was, that they continued to allow interest on deposits, which the branch banks did not. But the additional confidence which was then possessed by the branch banks may, notwithstanding, have induced some depositors to give them a preference to the country bankers.

The country bankers held a meeting in London where they passed several resolutions, and appointed a deputation to wait upon Lord Goderich, the First Lord of the Treasury, and Mr. Herries, the Chancellor of the Exchequer. Among other resolutions, were the following:—

"That the late measures of the Bank of England in the establishment of branch banks have the evident tendency to subvert the general bank-

ing system that has long existed throughout the country, and which has grown up with, and been adapted to, the wants and conveniences of the public.

"That it can be distinctly proved that the prosperity of trade, the support of agriculture, the increase of general improvement, and the productiveness of the national revenue, are intimately connected with the existing system of banking.

"That the country bankers would not complain of rival establishments, founded upon equal terms; but they do complain of being required to compete with a great company, possessing a monopoly and exclusive privileges.

"That should this great corporation, conducted by directors who are not personally responsible, succeed, by means of these exclusive advantages, in their apparent object of supplanting the existing banking establishments, they will thereby be rendered masters of the circulation of the country, which they will be enabled to contract or expand according to their own will, and thus be armed with a tremendous power and influence, dangerous to the stability of property and the independence of the country."

The country bankers complained, too, that the branch banks, instead of meeting them on the footing of equality, had refused to take their notes, unless the bankers had previously opened accounts with the branch banks and provided funds for the purpose.

Another subject of complaint on the part of the country bankers occurred in the year 1828.—The Bank of England had always issued their notes and post bills unstamped, in consideration of paying, as a composition for the stamp duties, 3,500*l.* per annum on every 1,000,000*l.* in circulation. When the branches were established they issued bills, drawn upon the parent establishment in London at twenty-one days after date, without being stamped, alleging that these were included in their composition. At the same time the country bankers could not draw bills upon London without paying the stamp duty. In a memorial, presented to the government by the bankers in the town and neighbourhood of Birmingham, it was shown that the stamp duty on a bill, drawn at twenty-one days on London, is three shillings and sixpence, while under the composition the Bank of England would pay but fivepence; and that a circulation throughout the year of 10,000*l.*, in bills of exchange of 20*l.* each, would subject the Bank of England to a payment, in lieu of stamp duty, of only 35*l.*, while other banks would have to pay 650*l.* An Act of Parliament (9 Geo. IV. c. 23) was accordingly passed, to enable country bankers to compound for their stamp duties on the same terms as the Bank of England, and to include bills drawn upon London at twenty-one days' date in the composition. By this law the country bankers have the advantage of paying duty only on the amount of notes in circulation.

6.—Comparison between Branch Banks and Independent Banks.

The establishment of branch banks may be considered as the effect of the formation of joint-stock banks. A bank, consisting of only six partners, is seldom sufficiently well known over a great extent of country, to be able to open many branches. The credit of such a bank would be liable to be shaken, at one or other of its branches, and this might throw a suspicion on the whole establishment. But a joint-stock bank, possessing undoubted credit, may extend its branches with confidence wherever adequate business can be obtained. The comparative merits of an independent private bank, and a branch of a joint-stock bank, and the effects they are adapted to produce in any town in which they may be introduced, form a useful subject of inquiry.

In the first place, the branch bank may be supposed to possess greater security. The branch, however small, would possess all the security that belonged to the whole establishment. The notes issued at the branch would be as valid as notes issued at the head office; and deposits made at the branch would be recoverable from all the partners in the whole bank. In case a run were upon even the smallest branch, the directors would be as anxious to meet the demand as though the run were directed against the largest. A small private bank, on the other hand, would have its only resource within itself. Its own capital would form its only guarantee; and, in case of a sudden demand, it must expect but little assistance from its neighbours.

Secondly, a branch bank would command the use of greater capital.

Every joint-stock bank would call upon its shareholders for a supply of capital equal to the carrying on of the business. This capital would be kept in a disposable form, and not like the capital of some private banks, locked up in loans upon inconvertible security. The confidence the bank possessed would create more banking capital, by attracting deposits and facilitating the issue of notes. Some banks create more capital than they can employ: such is the case when the amount of notes and deposits is greater than that of the loans and discounts. Others employ more than their banking capital; and some banks employ more at one season of the year, and less at another. In such cases a branch bank would be fed with capital from the parent bank, as its wants might demand. If it yielded more capital than it required, the parent bank would employ it elsewhere. If it wanted capital, the parent bank would grant an ample supply. But in these cases a private bank would be troubled with an excess of capital which it might not be able to employ advantageously for a short period; or it might be distressed to raise capital to meet the wants of its customers.

Thirdly, a branch bank would probably do business with the public on lower terms.

A bank having many branches usually charges the same rate of interest at all the branches. The Bank of England discounts at all its

branches on the same terms as in London. This cheapness of discount occasioned a great reduction of profits to the private bankers. A branch bank, too, conducted on the principle of allowing interest on deposits, will probably allow a higher rate, because the money can always be employed at some one or other of the branches; and it will return the deposits at a shorter notice, because the funds of the whole bank are ready to meet the call. In the transmission of money, a system of branch banks has a decided advantage, because the branches draw direct upon each other, and discount bills, payable at all the branches respectively. In a system of independent banks, the transmission of money from one to another is usually effected by a bill on London; and bills drawn by one town on another are obliged to be made payable in London.

A branch bank may thus be established in a place where a private bank could not exist. It may also be opened in places not sufficiently wealthy to furnish capital for a joint-stock bank, and where the people have no banking facilities. Branches being opened in such places, prevent the formation of banks with insufficient capital; for, to be without a bank is felt to be so great an inconvenience, that, if a good bank cannot be obtained, a bad one will, for a while, be supported. Hence, shopkeepers and others have become bankers; and, having but a small capital, and being unacquainted with their business, they have ultimately involved themselves and others in irretrievable ruin.

The directors or managers of a branch, too, acting under the direction of a superior board, are less liable to be involved by indiscreet advances of loans from personal friendship or imperfect information. The transactions are more thoroughly sifted, and no important measure adopted without full discussion. The very circumstance of being accountable to a superior board would render the agents at the branch more scrupulous and cautious than they might otherwise be; and the periodical returns made to the head office would constantly bring all the business of the branch under the notice of experienced and unbiassed inspectors.

There are, however, some disadvantages attending a branch bank. As a branch bank is a mere colony, the agents must be directed by the commands they receive from the seat of government; and the branch may be directed, in some cases, to adopt measures more adapted to promote the welfare of the whole establishment than to advance the interest of that individual branch. The Bank of England, for instance, may engage to lend, on advantageous terms, a certain sum of money to the government; and might, consequently, direct their agents at the branches to limit their discounts. As it is the duty of the directors to consult the interest of the whole establishment, they might consider themselves justified, as commercial men, in adopting this line of conduct. At the same time, it would be a great inconvenience to the persons resident at the places where the branches are established to be

deprived of their usual discounts. So any other joint-stock bank having branches might limit their discounts at those branches, in consequence of having more profitable ways of employing their capital at head-quarters.

Another possible inconvenience to a branch arises from the circumstance, that most cases of importance are necessarily referred for the consideration of the head office: not that these cases are more difficult than ordinary cases, but because they are deviations from the usual course of business, or they belong to a class of transactions which is very properly reserved for the decision of the highest authority. And hence persons who have dealings with the branch may be obliged to wait the return of post, or a still longer term, before they can obtain answers to important inquiries. This inconvenience may, however, be considerably diminished by giving to the managers or agents a high degree of discretionary power, and reserving as few cases as possible for the decision of the supreme board of directors.

6.—Comparison between Cash Credits and Bills of Exchange.

A cash credit operates much in the same way as a discount account and a current account combined. It resembles a discount account inasmuch as the banker is usually in advance to his customer. It resembles a current account, as it is required that there be frequent operations upon it; that is, that there be perpetual payings in and drawings out of money. The bankers expect that a cash credit shall maintain a banking capital equal to its own amount. As the banker is usually in advance, a cash credit can create no banking capital by means of deposits; it can be done only by means of the notes. If, then, the operations on a cash credit are sufficient to keep in circulation an amount of notes equal to the amount of the credit, then it gives satisfaction to the banker: but not otherwise. Previous to granting a cash credit, the banks always make inquiries to ascertain if this is likely to be the case; and even after it is granted, it is liable to be called up, if it has not accomplished this object. Hence cash credits are denied to persons who have no means of circulating the banker's notes, or who wish to employ the money as a dead loan; and, in all cases, they are limited to such an amount as the party is supposed to be capable of employing with advantage to the bank.

7.—Comparison between English and American Banking.

Whether we view the history or the principles of the respective institutions, I think it is abundantly evident that, as a whole, the system of chartered banks acted upon in America is inferior to the system of joint-stock banks as acted upon in Scotland: nor does it appear that

there are many of the American regulations that could be advantageously introduced into our joint-stock system. The restrictions on the amount of notes, deposits, and loans, are merely nominal; and were they reduced to so low a proportion as to be real restrictions, they would most probably be pernicious. Under the American system of limited liability, these regulations may be proper enough; for it is quite proper to limit the debts of a bank, if you limit the fund from which those debts are to be discharged.

8.—Comparative Effects of the Laws of 1844 and 1845, in England, Scotland, and Ireland.

The prohibition of new banks of issue has operated variously in the three countries. In Ireland, it was beneficial; in Scotland, it has been harmless; and in England, it is injurious. The Agricultural Bank of Ireland caused considerable mischief. To prevent the recurrence of such evils, the most effectual way was to prohibit the formation of new banks of issue. Hereafter this restriction may become oppressive. Cork, and Limerick, and Waterford, may become sufficiently wealthy to supply a banking capital, and may wish to form local banks. The local banks at Belfast have conferred great benefits on the north of Ireland. In Scotland, the banks are sufficiently numerous; and, as they are allowed to unite, the authorized issue of notes is never likely to be less than it is. And although restrictions on banks are unsound in principle, they may not at present do any harm in Scotland. In England the restriction is injurious. Had we an unlimited power of forming new banks, many of those firms that now consist of not more than six partners would be merged in larger establishments. The number of banks would be less—the amount of their issues would probably be less—but they would attract a higher degree of public confidence, and their character and continuance would not be dependent upon the lives of individual partners.

Unions of banks in either Ireland or Scotland are not very likely, nor perhaps desirable. The banks are large, have a respectable capital, and enjoy the public confidence. In England, many banks are small, and have small capitals: union among them would be highly beneficial. Yet such is the waywardness of legislation, that the acts of 1844 and 1845 give facilities to unions in Ireland and Scotland, and restrict them in England. In Ireland and Scotland, two banks of issue may unite, and the united bank have the united circulation. In England, if two banks of issue, either of which has more than six partners, should unite, the circulation of one or both of these banks would be lost.

The differences between the laws of England, Scotland, and Ireland, arose from those countries having been formerly separate and inde-

pendent nations. Scotland was an independent nation until the year 1714, and its laws and customs were different from those of England. Ireland was an independent nation until the year 1800, though its laws more nearly resembled those of England than did those of Scotland. But what was the reason that when those three nations became one United Kingdom, the same laws should not universally prevail throughout that United Kingdom? Why, for example, should not the summary way of enforcing payment of a bill of exchange that exists in Scotland, be also adopted in England and Ireland? A bill of exchange was the final settlement of an account, and the consideration was not allowed to be questioned even in England, unless it arose from smuggling or gambling? Why, then, not adopt the most summary way of enforcing payment? Again, why, since the countries are united, should bills of exchange drawn from Scotland and Ireland be regarded as foreign bills? A foreign bill of exchange might be accepted verbally or by letter; an inland bill could be accepted only by the accepter writing his name upon it. A foreign bill must be protested for non-acceptance, and again for non-payment; an inland bill was merely noted for non-payment. Why were bills, drawn on London from Dublin or Edinburgh, different in these respects from bills drawn from Liverpool or Newcastle? But even the laws passed since the Union possessed different enactments with reference to these different countries. In the year 1708, an Act of Parliament prohibited any bank of issue in England having more than six partners; and when the Bank of Ireland was formed, in the year 1783, this provision was extended to Ireland; but the act was never extended to Scotland. Again, when notes under 5*l.* were abolished in England by the Act of 1826, they were still allowed to be issued in Scotland and Ireland. Until the year 1844, the stamp duties upon bills of exchange and bankers' notes in Ireland were less than either in England or in Scotland. When joint-stock banks were first permitted in England, they were prohibited from coming within sixty-five miles of London. And when, two years before, they were permitted in Ireland, they were excluded from coming within fifty Irish miles of Dublin. Hence, within these circles and without these circles, there were different banking laws. In the late Sir Robert Peel's Acts of 1844 and 1845, different enactments were adopted in regard to these countries. These acts fixed the amount of notes that each bank might issue. But a bank in England that exceeded its issue was liable to a penalty equal to the amount of such excess. In Ireland and Scotland, a bank might exceed this amount provided it had in its vaults an amount of gold and silver equal to the excess,—the silver not to be above one-fourth of the gold. Again, if two English joint-stock banks of issue united, one bank lost its circulation. If two Scotch or Irish banks united, the united bank might issue notes to the amount of the circulation of both the banks thus

united. Again, if a bank of issue in England discontinued its circulation, and adopted the issue of Bank of England notes, the Bank of England might extend its circulation to the extent of two-thirds of the issue of the country bank. In Ireland, in a similar case, the Bank of Ireland might extend its issue to the amount of the whole circulation that was thus withdrawn. These variations in the law seem to rest on no better foundation than the caprice of statesmen.

SECTION III.

REASONING FROM PARABLES, FABLES, AND PROVERBS.

We take the following explanation of the word parable from Dr. Black's "Student's Manual." "Para-ble, from *para*, side by side, and *ballo*, I put. Thus parable means a similitude, or one thing compared to another. It is usually employed to designate a fable or allegorical instruction, founded on something real or apparent in nature or history, from which a moral is drawn, by comparing it with something in which the people are more immediately concerned."

The word parable is applied in the New Testament to four different kinds of literary compositions. These are tales, comparisons, parables strictly so called, *i.e.*, allegories and fables.

A TALE differs from a parable, strictly so called, in having *no reference beyond itself.*

The mode of reasoning from tales is the same as reasoning from examples. Tales are records of events that have occurred, or are so probable that they might have occurred. The lessons drawn from these tales are the general principles which the facts tend to prove. It is a mode of reasoning by induction. We have discussed the subject of induction in the first section of this part of our work.

A COMPARISON differs from a tale in that it is employed *to illustrate something beyond itself.* It differs from a parable in that the illustration is confined generally to one point.

Of comparison, as a principle of reasoning, we have

already treated. Here comparison is brought before us in the way of metaphor. In this point of view it can never amount to proof; but, nevertheless, its consideration is fairly within the province of logic. One part of our duty as logicians is to state clearly the propositions we intend to prove. Metaphorical comparisons are of great use in enabling us to make this clear statement. Half the disputes that exist among men arise from their misunderstanding one another. We should endeavour to acquire the art of stating clearly and vividly, what it is that we mean; and when we have done this, we shall in most cases have obviated the necessity for any further controversy.

The PARABLE strictly so called is an allegory. It is employed to illustrate something that seems at first to have no connexion with it, and *the machinery of the composition must correspond with the several parts of the matter to be illustrated.*

Parables, like comparisons, are not proofs. They are, however, vivid illustrations; and the more minute the particulars, the stronger is the illustration. There is, of course, always an analogy between the illustration and the matter to be illustrated. But we must distinguish between a logical and a metaphorical analogy. For instance, the analogy between an animal who had fallen into a pit, and a man who was lame, was a logical analogy, and it was clear that if one might be relieved on the Sabbath-day, so might the other. But the analogy between the kingdom of heaven and a grain of mustard-seed was a metaphorical analogy, and the rapid increase of the mustard-seed was no proof of the future rapid spread of Christianity, though it was a vivid representation of it.

The fable is a composition designed to illustrate a *proposition,* which is called the *moral* of the fable. It is not necessary that the *machinery of the fable should bear any resemblance* to any moral process to which the proposition may be applied. Herein it differs from the parable. The machinery of the parable, or allegory, must correspond with the moral processes it is intended to illustrate. The machinery of the fable represents nothing. It is required

only that the result shall illustrate a proposition, and this proposition must seem to flow from the plot of the fable.

Parables, we have already observed, do not prove—they only illustrate. Indeed, they are rarely used for the purposes of controversy. They serve to explain what was previously obscure, and thus enable the mind to perceive the truths more clearly, and hence to believe them more firmly. Fables are of a more controversial character. Many of them were originally invented for political purposes. Their object is to illustrate a general proposition, which general proposition is applied to the particular case that we wish to demonstrate. In the composition of the fable, we invent a series of supposed facts, which, by a species of induction, are designed to prove, as far as they go, a general proposition, which is called the moral of the fable. We then take this general proposition, and apply it to any case, or to all the cases to which it will apply. This is deduction. It is a kind of argument that we have classed under the relation of genus and species, and would rank under the first figure of syllogisms in scholastic logic. The design of fables, then, is to teach us general maxims and propositions, which we are to apply as we may have occasion, to practical purposes in our progress through the world. Hence the propriety of teaching them to children. By this means, they acquire at an early age lessons of profound wisdom, in an interesting and agreeable manner, which is likely to make a deep impression on the memory.

We now proceed to Proverbs.

"A proverb, strictly speaking, is a short moral sentence, which means something further than what the words literally imply. It is 'as apples of gold in a net-work of silver'—grave and profound sentiment, the truth of which acquires additional beauty when partially discovered through the veil of elegant fiction and imagery. But most of Solomon's proverbs are rather to be called maxims or sentences. The distinction between a proverb strictly so called, and a maxim or sentence, may be thus illustrated: When Solomon says, 'Trust in the Lord with all thine heart, and lean not to

thine own understanding,' this is no proverb, but a moral sentence. When he says, 'Drink waters out of thine own cistern,' this is a proverb; and it means, meddle not with that which belongs to another."—*Nicholls on the Proverbs.*

Proverbs are often the morals of fables. They are not usually capable of being proved by *reasoning;* they are proved by *observation and experience*, and are many of them the results of the experience of ages. But, referring chiefly to morals and manners, they possess only a moral universality, and hence it is often easy to point out some cases in which they are not realized. Thus—"The diligent hand maketh rich;" "Train up a child in the way he should go, and when he is old he will not depart from it," are sound maxims; but cases do sometimes occur in which they will not apply. This is no valid objection to them as rules for our guidance. In human affairs we can have no certain and infallible rule; we must be contented with a high degree of probability, and it is the part of true wisdom to submit our conduct to the guidance of this high degree of probability. "To be indecisive and reluctant to act," says Mr. Mill, "because we have not evidence of a perfectly conclusive character to act upon, is a defect sometimes incident to scientific minds, but which, wherever it exists, renders them unfit for practical emergencies. If we would succeed in action, we must judge by indications, which, although they do not generally mislead us, sometimes do, and must make up as far as possible for the incomplete conclusiveness of any one indication, by obtaining others to corroborate it."

I am not aware that I have employed either parables, fables, or proverbs, in any of my reasonings on banking. I cannot, therefore, produce any illustration of this kind. As the best substitute, I will transcribe the following articles, in which there are some exercises of the imagination:—

1.—A Run.

In the month of October, 1828, occurred the first run for gold upon the Provincial Bank of Ireland: it commenced at Wexford, and then proceeded to Kilkenny, Waterford, Clonmel, and Limerick. It was

supposed at the time to arise from some suspicion of the bank, but it is now generally believed that it was produced by the same influence that produced the subsequent runs. It was not directed against any of the branches of the Bank of Ireland, nor could it with effect, as all their notes were at that time payable only in Dublin. About the time the run was subsiding, I wrote the following letter, which was inserted in the *Leinster Journal*, a newspaper published at Kilkenny:—

Sir,—In referring to the recent run upon the southern banks, you have strongly pointed out the advantages afforded by those banks, but you have said nothing of the advantages of the run. Allow, me, as an impartial observer, to point out those advantages. A run upon a bank is advantageous, in the first place, to the runners themselves. Running is an exercise highly conducive to health; and when a wearied runner enters a bank, the doors of which he expected to find closed, and is presented with shining sovereigns in exchange for what he previously deemed a worthless rag, he must experience such pleasurable sensations as will amply compensate him for his former toil and anxiety. A run, too, is greatly for the advantage of all persons who are employed in the manufacture or sale of whisky. A man who has engaged in a hard run, and has got his money besides, would hardly think it proper to return home without taking a glass of the *native*; and if he should take two glasses instead of one, that you know would double the advantage. A run may induce the bank to limit their discounts, in consequence of which the price of butter, corn, and all other kinds of agricultural produce may be depressed, and this, of course, would be for the advantage of the buyers. A run, too, that shall call into circulation a vast quantity of gold would enable coiners to circulate counterfeit sovereigns, whereby the fine arts would be encouraged, more labour would be put into requisition, and an ample reward would be given to the exertions of *honest* industry. A run affords much food for conversation, and affords matter for profound and lofty speculation. Every one will, of course, investigate the causes of the run, and each may luxuriate in the reveries of his own imagination. The less that is known upon the subject, the wider field will there be for conjecture; and it may then be a matter of deep debate whether the run was occasioned by a peculiar configuration of the planets, or was merely the effect of *lunar* influences upon the minds of the people. These, Sir, appear to me to be some of the advantages of a run.

I am myself, however,

No Runner.

2.—The O'Connell Run.

1831. January. In consequence of legal proceedings taken by the Government against Mr. O'Connell, a run for gold took place on the

Bank of Ireland in Dublin, and on all the banks in the south of Ireland. During the run, I published the following article in the *Waterford Mail*:—

BANK NOTES *versus* GOLD.

To the Farmers, Landlords, Merchants, and Traders of the City and County of Waterford:

The humble Petition of Messieurs Les Billets de Banque:

Sheweth,

That your petitioners were appointed by acts of the English and Irish Parliaments to be measurers of value; it has been their office to denote the relative value of commodities, with a view to their equitable transfer from one person to another; and they have discharged this office with more convenience to the public than it could have been performed by any other medium of exchange.

That, notwithstanding these services, sundry persons have become evil-disposed towards your petitioners, and have attempted the total destruction of your petitioners, not by requesting the Legislature to repeal the acts which called them into existence, but by endeavouring to produce what is usually called a run upon the banks.

That your petitioners, therefore, beg permission to state what they deem would be the effects upon the agriculture and commerce of the city and county of Waterford, in case your petitioners should be banished or destroyed through the machinations of such evil-disposed persons.

The banks, which now discount at four per cent. in consequence of issuing their own notes, would, in case notes were abolished, be compelled to charge a higher rate of discount, and perhaps a commission besides. They would find it more profitable to employ their money in mortgage or in the funds, unless they were to make such charges on their discounts as should render their capital equally productive, after having paid the expenses of their establishment. As, too, the banks would be deprived of the capital now created by the issue of their notes, they would probably restrict the amount of their discounts. They would discount only for merchants of the first class; and those of an inferior grade would be compelled to wait for remittances from England, instead of receiving the money for their bills, as they now do, the moment their shipments are made. The substitution of gold for notes would, therefore, put many of our merchants frequently out of the market, and impose heavy charges upon the remainder.

The price at which commodities exported from Waterford can be sold in England, is regulated by the market price in England. The Irish exporter has no power to sell his exports at a higher price. If, then, the merchant is subjected to higher charges for the discount of his bills, the only way he can reimburse himself is by giving a less price to the farmer. The fall in the price of corn, butter, and pigs in

Ireland, must be equal to at least the amount of these additional charges. Besides, should the inferior merchants not be able to get their bills discounted at the banks, there would be fewer buyers in the market, and this would tend to reduce prices still further. Such would probably be the effect of the substitution of gold for notes, even were it produced by a legal enactment; but were it produced by what is called a run upon the banks, the prices of agricultural commodities would fall much lower. In addition to the above-mentioned causes, there would be a degree of alarm—a sort of panic—that would have a powerful effect for a while in reducing prices. A run upon the banks for gold would, therefore, be ruinous to the farmers.

As the farmer could not obtain an adequate price for his produce, he could not pay his rent, and the landlord must suffer. Perhaps the present rents might for a short time be squeezed out of those farmers who have accumulated a little capital, but ultimately rents must fall in proportion to the reduced value of the crops.

As the farmers and landlords would not have the same amount of money as formerly to lay out with the traders and shopkeepers, these would find their business decline; and those who had given credit would probably never recover the full amount of the debts due to them. And let it be observed, that while the substitution of gold for notes would materially reduce in Ireland the prices of the Irish exports, it would not reduce in the same proportion the prices of the commodities imported. The price in Ireland of a commodity imported depends upon the price at which it can be purchased in England, or in any other country from which it is obtained. So that while a gold currency would reduce the price of corn, butter, and pigs, it would scarcely affect the prices of cotton, mercery, groceries, ironmongery, wines, timber, &c., &c. As these could not be purchased at a lower price than they are now, they could not be sold at a lower price, except the reduction were taken out of the profits of the importer. As, therefore, the sellers of agricultural commodities would receive for the same amount of exports a less sum of money, they would not be able to purchase so many imported commodities, and consequently the business of the dealers and shopkeepers must decline.

Thus it appears that the substitution of a gold for a paper currency would be injurious to the banks, by destroying a part of their capital, and diminishing their business—would be injurious to the merchants, by increasing the charges upon their discounts, and limiting the accommodation they receive from the banks—would be injurious to the farmers, by reducing the price of agricultural produce—would be injurious to the landlords, by rendering the farmers unable to pay their rents—would be injurious to the traders and shopkeepers, by rendering the farmers and landlords less able to purchase their goods. Thus all these classes would be injured, without any one class receiving any benefit.

Wherefore your petitioners most humbly pray, that you will prevent the arrival of these evils to the city and county of Waterford, and be pleased to discourage any attempts that may be made for the destruction of your petitioners.

(Signed) One Pound.
Thirty Shillings.
Three Pounds.
Four Pounds.
Five Pounds

We understand the above petition was handed for signatures to Messieurs the 10*l.*, 20*l.*, 30*l.*, 50*l.*, and 100*l.* notes; but they all refused to sign, alleging that the matter did not concern them, for that no person whose circumstances enabled him to hold even a 10*l.* note, could possibly be so uninformed as to entertain the sentiments against which the petition contends; and they declared, upon their honour as gentlemen, that they had never heard such sentiments expressed by any individual with whom they had been conversant. It is reported that Monsieur 5*l.* has withdrawn his signature from the petition upon the same grounds.

3.—The Poetry of Banking.

The following article was written after reading "The Poetry of Life," and some years subsequently was published in the first volume of the *Bankers' Magazine*:—

"And what has poetry to do with banking? Surely no employment can be more unpoetic than that of a banker." This is a mistake. They who have read Mrs. Ellis's "Poetry of Life," need not be informed that many of the objects and events of ordinary life are in their nature highly poetic. Like Molière's character, who had been speaking prose for forty years without knowing it, we talk, and think, and act poetry, without being at all conscious of the fact. With a little observation, we should find that the flowers of poetry are scattered in profusion around almost every path of life, and not a few are found to bloom even on the dry and barren soil of banking. Were we to enter into the feelings of a banker, we should find that his *recollections*, his *associations*, and his *positions*, often partake highly of a poetic character.

Feeling is the soul of poetry. Poetical *recollections* are recollections that are adapted to raise the feelings or the passions of the mind.

The mutability of human affairs is one of the most fertile sources of poetical reminiscences; and who is more familiar with these than a banker? The circle in which he moves is in perpetual motion. How numerous are his recollections of men whose names "stood first on 'Change," but, who in a short time, have "fallen from their high state,"

and have been driven to pass their final examination in the Court of Bankrupts! It is the frequency with which these events occur that makes us overlook their poetic character. But the fate of a monarch driven from his throne; of a hero who has lost a battle; or of a deserted maiden who laments the infidelity of her swain, is scarcely less afflictive, nor, in many cases, less romantic. And the banker is not a mere spectator of these events; he often feels a most painful interest in them; and they make a tremendous impression upon his mind, by the pecuniary losses he sustains through the unhappy defaulters.

His individual reminiscences are also often highly poetic. While on the one hand, his mind is gratified by the recollection of the instances in which he had been the means of raising honest industry to affluence; on the other, he recollects many cases in which his caution has been overreached, and his confidence abused. Often, amid the gloom of his evening walks, he will fancy that he sees the ghosts of his past-due bills stalking across his path; he seems to view their hideous countenances, some cast down in sullen despondency at their fate, and others grinning with ferocious delight at having outwitted a banker. The horrid spectres unnerve his strength, and make him resolve never again to trust to even the fairest appearances of integrity; and at other times they rouse his indignation, and make him wish for the thunderbolts of heaven that he might hurl the culprits to the nether world, and there inflict a heavier punishment than can be imposed by human laws.

The *associations* of a banker often partake of a poetic character. As a dealer in money, his thoughts will often be carried back to that state of society when money was unknown. He will think of "life in the wilds," and he will trace the progress of society from a state of simplicity and rudeness to its highest degree of civilization; from a state of barter to the use of various substances, as money, until it arrived to the employment of coin. A guinea or a sovereign will awaken poetic associations. The coat of arms will carry back the mind to the age of chivalry, when the knight placed his arms upon his shield, and challenged the world in honour of his lady love; while the appearance of the sovereign on the other side, will remind him of all the splendours of royal munificence. And should it be a female sovereign, his association will be still more poetic: he will think of her youth, her beauty, the kindness of her heart, the clemency of her government; and, in a leisure hour, his thoughts perchance will be carried from his office to his home, and rest upon his own domestic queen, and he will be reminded of pleasures more exquisite than those even which arise from the contemplation of the golden treasures locked within his vaults.

Poetic *positions* are positions which express the feelings of the mind: thus, there are positions of doubt, of sorrow, of joy, &c. Many of the

positions into which we are thrown, in ordinary life, are highly poetic, although they may pass by without being celebrated in verse. Thus when a portly gentleman enters an omnibus in which six persons are already seated on each side, and he stands in doubt where he is to find a place, he is in a poetic position—a position of suspense. And when the jerk of the omnibus throws him off his balance, and he falls heavily against a young lady who utters a shriek of horror, both he and the lady are in a poetic position—a position of alarm.

It must be acknowledged that the poetic positions in which a banker may be placed are not numerous. His occupation precludes the exercise of the more violent feelings of our nature. His anxieties are many, and his joys are few. A composed serenity of mind is the highest degree of happiness he can ever hope to attain, and the poetic positions in which he is most frequently placed are those of suspense and apprehension.

The maiden who hesitates whether she will or will not accept the proffered hand of her lover is in a position of suspense: the soldier who, with lifted sword, hesitates whether he will slay or spare his prostrate foe is in a position of suspense; and the banker who holds between his fingers a bill of exchange, hesitating whether he will discount it or not, is in a position of suspense. "If," he mutters to himself, "I discount this bill, I may lose the money; and if I do not discount it, I may offend my customer, and lose the account: what had I better do?" This is by no means the only case in which he is placed in this painful position.

Positions of *apprehension* and alarm are not less frequent. In times of public distress especially, there are rumours upon rumours respecting parties who are said to be about to fail; and every rumour drives the banker to his bill-case, that he may see what amount of bills he holds upon the rumoured party. What anxiety he manifests when, with elongated visage, and with thought profound, he turns them over one after the other, and calculates the tremendous loss which he would incur by the failure! The expression of his countenance is quite poetic. What a fine subject for the pencil!

But, perhaps, the most interesting positions of alarm are those which occur when there is a run upon his bank.

Let us take the instance of a country banker. An hour before his bank opens, he sees a crowd around the house holding his notes in their hands, and prepared to rush in and demand the amount; while the letters he has just opened inform him that some neighbouring banks have stopped payment. The banker congratulates himself on his foresight in having already sent a messenger to London to obtain supplies, and thinks with satisfaction on the large amount of ready cash he has in the hands of his London agent. Conscious, therefore, of being prepared to meet any run that can be made upon him, his countenance betokens that he is in a *position of complacency*. The door

is open, and the run begins. The cash on hand is disappearing more rapidly than he expected, and the messenger has not returned from London. He begins to feel himself in *a position of apprehension.* H instructs his clerk to pay away the money more deliberately; to coun it twice over in order to be sure it is right; to give a sovereign short in order that he may have to count the money again; and to adopt every other means of gaining time till the messenger returns. But notwith standing the delay which is thus gained, his till is almost empty. He now finds himself in a *position of alarm.* At this moment he perceives, at a distance, a post-chaise driving furiously towards the bank; he hopes it brings the supplies from London; he strains his eye-balls to catch the view of the traveller; he is in *a position of anxiety.* At length, he clearly recognises the face of his messenger; he is now in *a position of transport.* "How very lucky," he says to himself, "that just at the moment the last sovereign is thrown across the counter, a fresh supply should arrive!" The post-chaise rattles up to the door; the messenger enters with breathless haste. "Welcome, welcome!" exclaims the banker, "you are just in time." The messenger replies that he has brought no money; for the London agent, of whom he was to obtain supplies, had himself stopped payment the day before. The banker sinks at once into *a position of despair!*

SECTION IV.

REASONING FROM WRITTEN DOCUMENTS.

WRITTEN documents give rise to a vast deal of argumentation. Different meanings are attached to letters, to agreements, to wills, and to many other writings. To decide the questions which are thus raised, we must have recourse to reasoning. Sometimes the authenticity of the document is denied. We have then to prove that it was written by the author whose name it bears; and in the case of wills, we have also to prove that the party was of sound mind when he affixed his signature. At other times, the dispute has reference to the meaning of the document. Here we have to show what was the meaning intended by the author. When there is no doubt about either the authenticity or the meaning, the questions raised will have a reference to the character of those cases to which the terms of the document may be

applied. For example, the written law prohibits murder. If then, one man kills another in a duel, is that murder, or only manslaughter? The law prohibits swindling. If, then, a man borrows money, knowing that he cannot repay it, is that swindling, or is it an ordinary debt?

The trials that take place in our civil and criminal courts, with a view *to ascertain the facts of the case,* are not reasonings from written documents: the object is merely to prove the facts. The evidence received is either direct or indirect. Direct evidence is the testimony of witnesses, and here reasoning is employed only in regard to the character and credibility of the witnesses. The other kind of evidence is indirect, or, as it is called, circumstantial. We have explained this kind of evidence in the Section on Conditional Causes, at page 95. When points of law *are reserved* for the opinions of the judges, or cases are argued *in banco,* the reasonings, have a reference to written documents—that is, to the meaning and application of the laws.

All our statute laws are written documents. They are enacted by the three estates of the realm—King, Lords, and Commons. But the laws sometimes require to be explained. The duty of explaining the laws devolves on the judges. But the judges explain only those portions respecting which there is any doubt; and these portions are pointed out to them by the disputes that arise between the citizens. These disputes refer to various points. Sometimes two laws appear to contradict one another. In this case the judges will fix upon the meaning that is supposed to be most in accordance with the intentions of the legislature; for the judges always pay the legislature the compliment to suppose that it did not intend to enact contradictory laws. In these cases the principle of reasoning is, as we have already seen, from final cause and effect. Sometimes the question is, whether a certain action, or a certain class of actions, is included within certain phraseology: here the reasoning is between genus and species. Often the question is, whether laws passed in former times apply to modern inventions or practices: here the reasoning is often by analogy.

Under the head of written documents we may place statistical returns.

The facts with which this science is conversant are those which are susceptible of being represented and registered by figures. Its arithmetical operations are chiefly multiplication and division, the calculation of ratios, and the construction of tables.

There is scarcely a science from which so many new and useful truths may be drawn so readily as from statistics. By new truths I mean, of course, truths that are new to us. No truth is new in itself. The doctrine of gravitation was a truth in itself before it was discovered by Newton; but he made us acquainted with it. It is only in this sense that any truth can be new. By statistics many discoveries have been made—discoveries, too, of great importance, and made by very simple means. For instance, it was a new discovery in Edinburgh that the annual consumption of spirits in Scotland was in the proportion of $11\frac{1}{6}$ gallons to every individual; while in Ireland, it was in the proportion of $3\frac{1}{2}$ gallons; and in England, it was only in the proportion of $2\frac{1}{3}$ gallons. It was also a new truth that the wealth of the lower classes is increasing—and increasing, too, in a higher proportion than that of the higher classes. For these truths we are indebted to Mr. Porter.

These new truths are sometimes discovered by simple multiplication and division; sometimes by ratios; and sometimes by placing interesting information in a tabular form.

When our figures are chronological registers of facts, new and highly important truths are sometimes ascertained by merely observing if any specific facts re-occur at certain periods. When we have ascertained any uniformity in the occurrence of certain events, we call that uniformity a LAW. Thus those uniformities that were found to occur in regard to the deaths at various ages, are now called the laws of mortality. A few years ago, a Committee of the House of Commons published the average *monthly* circulation, for several years, of the notes that had been issued respectively by the Bank of England, the country banks, the banks of

Scotland, and the banks of Ireland. From these returns we deduced what we termed "The Laws of the Currency."

The relation of cause and effect has a close connexion with statistics. Indeed, we may almost give the same definition of statistics which has been given of philosophy, the "science which teaches the causes of things." We discover the "causes of things" in various ways. Sometimes statistics will merely give us the facts, and we have to ascertain the causes from other sources. Thus we have fluctuation in the prices of corn—of the funds—and we have to judge of the causes. Here there is much room for difference of opinion. For instance, statistics will tell us that there was a great fall in the price of the funds in February, 1848; history will tell us that just before this, occurred the Revolution in France. We may therefore infer with confidence, that the French Revolution was the cause of a decline in the English funds. But generally the relation of cause and effect is less obvious and less sudden, and consequently there is more occasion for sound reasoning.

In reply to a statistical argument, Mr. Canning exclaimed —"Not figures, but facts." All figures should represent facts. But we cannot deny that even the facts represented by figures may, like other facts, become the basis of erroneous reasoning.

Our reasoning may be erroneous from the inaccuracy of the *data*. In some cases no records may have been kept, and hence we have no authenticated facts. From this cause our reasoning may be defective respecting the populousness of ancient nations—the average duration of life in the middle ages—the amount of the revenue the pope derived from England previous to the Reformation. Sometimes when records have been kept they are defective. Thus, the produce of the gold and silver mines in America and in Russia has been calculated from the amount of the duty paid to the State. But, of course, we have no record of the cases in which the duty has been evaded. We have records of the importation of tobacco, but we can have no records of the quantity introduced by smugglers. We know the quantity

of spirits that pay duty in Great Britain and Ireland every year, but we have no records of the illicit distillation.

So in taking our series of figures from different countries, we are liable to error in making comparisons between those things to which these series of figures may respectively refer. The *prices* of commodities, for instance, though referring to things called by the same name, may not refer to things of the same kind or the same quality. In comparing the wages of different countries, we may be led astray, for the quantity of labour rendered in return for these respective rates of wages may very much differ. When the union between England and Ireland was under consideration in the House of Commons, Mr. Wilberforce presented a petition from the Woollen Manufacturers of Yorkshire, praying to be protected against the low wages of Ireland. It was presumed that if woollen manufactures were established in Ireland, they would be able, from the low rate of wages, to undersell those of Yorkshire. Certain duties, called "Union duties," were accordingly continued for twenty years. But though these duties have ceased for thirty years, the woollen manufactures, notwithstanding the low wages, have shown no disposition to take flight from Leeds to Galway.

We are sometimes led astray in making comparisons between two series of figures, by confining our attention simply to the figures, without noticing the different circumstances of the respective periods to which those figures refer. Thus, during the commercial pressure of 1847, the Chancellor of the Exchequer stated to some deputations that waited upon him on the subject, that the restrictions on the issue of bank-notes, by the act of 1844, could not be the cause of the pressure, for the amount of notes then in circulation was higher than it had been in former years when no pressure existed. It was afterwards stated before the Parliamentary Committee, that of the notes in circulation, above 4,000,000*l.* were locked up in the vaults of the London and country bankers, as a provision for any demand that might be made upon them for payment of their notes or deposits.

The principal written documents that have a reference to banking, are acts of Parliament, legal decisions, charters, deeds of settlement, bills of exchange, promissory notes, letters of credit, cash credit bonds, and reports of Parliamentary committees.

The following illustrations of this principle are taken from the author's writings on Banking.

1.—The Deed of Settlement.

Although the law in England does not place any limitation upon the amount of loans or advances made by joint-stock banks, yet restrictions upon some descriptions of advance are imposed by most of our deeds of settlement. The committee state—

"Advancing money on real security is in no instance forbidden. The deeds of three companies are silent on this subject—the rest expressly allow it.

"The majority of the deeds are silent on the subject of the purchase of land. The —— Banking Company expressly allows it. The —— Banking Company and the Union Banking Company expressly forbid it.

"An advance of money on mining concerns is in no instance expressly allowed—in many it is expressly forbidden—in the majority it is passed over in silence.

"Advances of money upon any public foreign government stock, or the stock of any foreign chartered public 'company,' is directly sanctioned in the deeds of four banking companies. Investment in foreign government stock or funds is allowed by the deed of another bank. Such advances are expressly forbidden by many of the deeds, and are passed over in silence by many others."

In no case does it appear that any restriction is placed upon loans granted upon individual security; that is, upon overdrawn accounts. In all our manufacturing towns, it is the practice for the banks to make large permanent advances to the manufacturers; and, as a remuneration, they charge a commission of a quarter per cent. upon the account. Here the banks adopt the dangerous principle of running great risks for the sake of large profits. This practice has not been introduced by the joint-stock banks. It has for many years been the practice of the private bankers, and has no doubt been exceedingly beneficial in stimulating our manufactures, and in giving worthy men of small means the opportunity of advancing themselves in the world. But now that our manufacturers are become wealthy, the same practice is not necessary. It is not the business of banks to supply their customers with capital to carry on their trade: it is a dangerous principle; because, in the first place, there is a great risk upon individual security;

and then, if the money is wanted, it cannot suddenly be called up. I think, therefore, that joint-stock banks should limit their advances of this sort to a certain proportion of the amount of paid-up capital.

2.—Irish Bank Notes.

In the year 1721, an act was passed for better securing the payment of bankers' notes. It enacted that notes not paid on demand should bear interest; that bankers should not fraudulently alienate any part of their property; and that, after their death, their real estates should be accountable for payment of their notes. This act was repealed by 33 Geo. II. c. 14. From this act it appears, that at that time "the trade of this kingdom was partly carried on by the means of cash notes given by bankers," and that the "trade or calling of a banker" was followed or exercised by "the keeping a public shop, house, or office, for the receipt of the money of such persons as were willing to deposit the same in their custody;" and the bankers gave or issued promissory notes for the payment of the money so deposited on demand or on a certain day. Hence it is evident that the bankers' notes in Ireland were like the goldsmiths' notes in England—receipts for money that had been lodged in their hands.

3.—The Legal Rate of Interest.

1731. The legal interest of money reduced to six per cent. where it still remains. The preamble to this Act will show the opinions which were then entertained respecting the effects of a high rate of interest. They appear to be similar to those of Sir Josiah Child—"Whereas the reducing of interest to eight, and from thence to seven in the hundred, hath by experience been found to be very beneficial to the advancement of trade and improvement of lands; and, whereas there is at this time a very great abatement in the value of divers merchandise, wares, and commodities of this kingdom, both at home and also in foreign parts whither they are transported; which is in a great measure occasioned by foreign merchants being able to procure money at less expense, and for less interest than the merchants in this kingdom, by which means they can give greater prices for their native commodities and manufactures, and sell them cheaper abroad by having a greater gain in proportion to their risk from their freight, cheaper by the lowness of interest. And, whereas the value of lands would rise at home, and the owners and occupiers of lands would be enabled to improve them by fencing, draining, manuring, and otherwise cultivating them; and manufactures, and other useful arts and fisheries, might be improved upon procuring money at an easy interest. And also, usurers and others who now live upon the interest of their money, would betake themselves to some useful art, calling, or trade, or become industrious improvers of the lands of this kingdom, which they cannot now do to any profit whilst

the interest on loan continues at so high a rate as seven pounds in the hundred pounds for a year; which mischiefs cannot be prevented, nor improvements made, without reducing interest to a nearer proportion with the interest allowed for money in foreign states, be it therefore enacted," &c.

4.—Laws respecting Joint-Stock Banks.

This mode of reasoning from written documents, so far as it refers to the laws of our country will, perhaps, be best explained by a practical illustration. And for this purpose we shall notice the legal decisions that have taken place with reference to joint-stock banking.

At the renewal of the Bank of England Charter, in the year 1708, a clause was introduced which prohibited any other company, consisting of more than six persons, "to borrow, owe, or take up any sum or sums of money on their bills or notes, payable on demand, or at a less time than six months from the borrowing thereof."

This clause, intended to prohibit the issue of notes, was supposed to prevent the formation of any banks consisting of more than six persons, even should they not issue notes.

But in the year 1833, when the Bank Charter was about to be again renewed, a doubt arose as to whether this was the meaning of the law. The Chancellor of the Exchequer, Lord Althorp, required the opinion of the Attorney and the Solicitor-General, who stated that the law did not prohibit the formation of banks having more than six partners, provided they did not issue notes. Two other counsel of equal eminence gave their opinion the other way. To remove all doubts, a clause was ultimately introduced, which "*declared* and enacted," that such companies might be formed. Here was an instance of the uncertainty of the law being removed, not by an appeal to the judges, but by a declaratory enactment.

The law having thus sanctioned the establishment of joint-stock banks in London, a joint-stock bank was formed, and, like other banks in London, accepted bills of exchange drawn by its country connexions. But the Bank of England alleged that this was a violation of the above prohibition against "borrowing, owing, or taking up money," &c. Here the reasoning was on the relation of genus and species. The words prohibited a certain class of actions, and the question was, whether accepting bills, as well as issuing notes, was included in the prohibited class. The law decided that it was; and an injunction was obtained in 1837, prohibiting the acceptance of all bills drawn at less than six months after date. In the year 1844, an Act of Parliament granted to such banks the same privileges as are exercised by private bankers.

The lawyers have always maintained that a strict analogy exists between private partnerships and public companies. The only difference, they contend, is in the number of the partners. And hence the

laws passed originally with reference to small partnerships they think ought to be applied to large partnerships. From this cause has arisen much litigation and many appeals to the Government to amend the laws. In the following cases, the appeals have been successful.

The law requires that the names of all the partners in a firm that is either plaintiff or defendant in a suit, should be placed on the record. When joint-stock banks were first allowed in England, in 1826, beyond sixty-five miles from London, they were allowed to sue or be sued in the name of one or two partners, who were registered for that purpose at the Stamp Office. But this privilege was not granted to the banks formed in London. Hence, previous to 1844, those banks were compelled to make a special agreement with every customer, whereby he held himself answerable personally to the trustees for any sum he might become indebted to the bank.

It is against the law for any clergyman to be a trader. Several clergymen became shareholders in joint-stock banks. It was contended, and successfully, that the clergyman having become a partner in a trading company, was a trader. The company was therefore illegal, and consequently could neither sue nor be sued in a court of law. An act of parliament was obtained to remedy this defect.

The Northern and Central Bank at Manchester had occasion to sue for debt some of its own shareholders. No private partnership can sue a member of its own firm. It was held that the same rule held in regard to joint-stock banks. The action was lost. But the Chancellor of the Exchequer, Mr. Spring Rice (now Lord Monteagle), brought in an act of parliament to meet the case.

The manager of a joint-stock bank at Walsall was tried for robbing the bank of about 7,000*l*. At the trial it was shown that he was a partner in the company. His advocate contended that he was a joint owner of the property, and therefore could not be guilty of robbery. The judge took the same view, and he was acquitted. This evil, too, was amended by a new act of parliament.

Lord Denman brought in an act for allowing shareholders in joint-stock banks, and other parties in similar circumstances, to be examined as witnesses. (6 & 7 Vic. c. 86.) It was enacted, that "no person should be excluded by reason of incapacity from crime *or interest* from giving evidence" in a court of law. But the act contained a *proviso* that excluded the plaintiff himself. An action was brought by a public company, and one of the witnesses was a shareholder in the company. The question was raised, whether he could be legally examined as a witness. The Court of Exchequer decided that he could not. Thus a shareholder in a public company was considered to be the same as a partner in a private firm. So far, therefore, as concerns the shareholders in joint-stock banks, this *proviso* annihilated the act.

By the Act to Amend the Law of Evidence (14 & 15 Vic. c. 99),

passed in the Session of 1851, the proviso in Lord Denman's Act is repealed, and the shareholders in joint-stock banks, and in all other public companies, may be examined as witnesses even in cases where those companies may be either plaintiffs or defendants.

5.—The Laws of the Currency.

We will take the monthly returns* of the circulation for the period that is past, that is, from the end of September 1833 to the end of 1843, and endeavour, by observing their various revolutions, to discover if they are governed by any fixed causes or principles—to ascertain if those principles are uniform in their operation; and if we should discover that the revolutions of the currency are regulated by any uniform principles, we shall call those principles the Laws of the Currency.

We shall begin with that portion of the currency which consists of notes issued by the Bank of England. On looking over the monthly circulation of the Bank of England, given in the Table, No. 34, in the Appendix to the Report of 1840, we observe, that the circulation of the months in which the public dividends are paid is higher than in the subsequent months. Thus the average circulation of January is higher than that of February or March. The circulation of April is higher than that of May or June. The circulation of July is higher than that of August or September. And the circulation of October is higher than that of November or December. This, then, we may consider as one law of the circulation of the Bank of England—that it ebbs and flows four times in the year, in consequence of the payment of the quarterly dividends. This law does not apply to any other bank, as all the Government dividends are paid by the Bank of England.

On inspecting the monthly returns of the country circulation for the last ten years, we find that the highest amount is in the month of April: thence it descends, and arrives at the lowest point by the end of August, which is the lowest point in the year. It gradually increases to November; a slight reaction takes place in December; but it then advances until it reaches the highest point in April. The general law is, that the country circulation always makes one circuit in the year—being at its lowest point in August, and advancing to December, and continuing to advance to its highest point in the month of April, and then again descending to its lowest point in August.

In Scotland the lowest point of the circulation is in March and the highest in November. The advance, however, between these two points is not uniform—for the highest of the intervening months is May, after which there is a slight reaction; but it increases again until November,

* These returns were laid before a select committee of the House of Commons on *Banks of Issue*. A summary of the evidence was published under the title of 'The Country Banks and the Currency,' by Mr. G. M. Bell, author of 'The Philosophy of Joint-Stock Banking.'

and falls off in December. The reason of the great increase in May and November is, that these are the seasons of making payments. The interest due on mortgages is then settled, annuities are then paid, the country people usually take the interest on their deposit receipts, and the servants receive their wages. There are frequently large sums transferred by way of mortgage. It is the custom of Scotland to settle all transactions, large as well as small, by bank notes—not by cheques on bankers, as in London. It is remarkable that these monthly variations occur uniformly every year, while the amount of the circulation in the corresponding months of different years undergoes comparatively very little change.

From what we have already said of the laws of the currency, those of our readers who are acquainted with Ireland will be able to judge beforehand of the revolutions of her circulation. Being purely an agricultural country, the lowest points will of course be in August or September, immediately before the harvest, and the commencement of the cattle and bacon trade. Then it rises rapidly till it reaches its highest point in January, and then gradually declines. As an agricultural country, we should naturally expect that during the season of increase the circulation would expand most in the rural districts; and so we find that the circulation of the Bank of Ireland in Dublin, expands very moderately—that of her branches, which are located chiefly in large towns, expands more —while the circulation of the joint-stock banks, which are located in the agricultural districts, receives the largest increase. Again, the purchases and sales of agricultural produce are known to be in small amounts; and hence the notes of the smallest denomination receive the largest relative increase. The annual changes of the Irish circulation are governed chiefly by the produce of the harvest, and the prices of agricultural products. These are the laws of the circulation of Ireland.

SECTION V.

SERIES OF REASONINGS.

We shall in this section give some further illustrations of the principles of reasoning, taken from the author's writings on Banking.

1.—The Progress of Joint-Stock Banking.

On looking back upon the progress of joint-stock banking in England, we feel abundant reason to be satisfied. If the difficulties against which the system had to contend be taken into consideration, this rapid progress of joint-stock banking affords much ground for congratulation.

Not only had it to contend against the united influence of the private bankers—the powerful rivalry of the Bank of England—the intricacy and the uncertainty of the law—but it had also to contend against the indifference of the public mind. Those persons who oppose joint-stock banks are quite right in saying that they were not called for by the voice of the country. They were called into existence by the act of an enlightened government, who took advantage of the opportunity of passing the law at a moment when a national convulsion had paralysed the energies of those parties who, on any other occasion, might have successfully resisted its introduction. But for several years after the law had passed, joint-stock banking made but slow progress. Englishmen are the slaves of habit, and hence the apostles of the principles of joint-stock banking found the mass of the population bowed down in superstitious homage to those idols of gold, of silver, of wood, and of brass, which were raised before their eyes in the persons of the private bankers. It is, however, a good trait in the character of our countrymen that they are attached to established institutions; and in proportion as the principles of joint-stock banking have been tardily received, in such proportion will be the tenacity with which they will be held when they are once understood.

Of the future progress of joint-stock banking there can be no doubt whatever. Without alluding to the security they afford to the public, or the advantages they yield to their shareholders, the whole chapter of accidents is in their favour. Private bankers may become poor, and fail; or they may get rich and retire; or, if they neither fail nor retire, they will certainly die; their sons may not have the discretion, or the good fortune of their parents; or they may be too wealthy to attend to their business. From these and other causes, the private banks must be diminished. Indeed, so much does a private bank depend upon the personal character of the banker, that there are very few country banks in existence which were not formed within the recollection of the present generation. Now, a joint-stock bank possesses this peculiar property, that it never dies. Its influence consists in the power of association, and after it has been established a few years, it depends but little upon the exertions of individuals. A manager or a director may die; his place is immediately filled up, and the public are hardly conscious of the change. And let it be observed that the place of every private bank that fails is immediately filled up by the branch of a joint-stock bank; and if a joint-stock bank stop payment its place is not supplied by a new private bank, but by the branch of some other joint-stock bank. Several instances of this kind have already occurred.

We have, therefore, no apprehensions that any measures which the legislature may enact will have the effect of permanently arresting the progress of joint-stock banking. In defiance of all legislation, the thinking portion of the community will place their money in those banks

which experience has pointed out as being the most secure. The prevention of abuses will not weaken the banks, but will add to their respectability. The cheapness of money will increase the profits, and consequently the strength of those that are established in the manufacturing districts. Their high dividends will invite the investments of the capitalist, while their increasing influence, arising from their large capital and their numerous proprietary, will deter any administration from hazarding its own existence by engaging in a wanton crusade against them.

The banks have only to persevere in the same prudent line of conduct they have hitherto pursued. Let them not be too anxious to extend their business beyond their means: let them not be tempted by the low rate of interest to become dependent for re-discount on the London money market: let them avoid every dead lock-up of capital; let them be careful to escape losses, and the profits will come of themselves. By adopting this prudent course, and availing themselves quietly of every advantage which events may throw in their way, they will gradually extend their power, their influence, and their usefulness, through every class of the community.*

2.—Deeds of Settlement.

One of the topics to which the committee seem to have paid particular attention is the framing of the deeds of settlement.

The deed of settlement is the deed of partnership amongst the shareholders, and it *settles* the constitution of the company. It fixes the amount of the capital, the value of the shares, the number of the directors, the nature of the business to be carried on, and a variety of other matters connected with the operations of the bank. The provisions of the deed are usually subjects of discussion between the directors, and the solicitors. It is then submitted to the inspection of some eminent barrister, and afterwards signed by the shareholders. Those that we have seen are for the most part very creditable to both the banking and the legal knowledge of the gentlemen who have been engaged in their construction.

With reference to this subject the committee state:—

"The law does not require that the deed of settlement shall be considered or revised by any competent authority whatever, and no precaution is taken to enforce the insertion in such deeds of clauses the most obvious and necessary."

We may infer from this that the committees are of opinion that the deeds of settlement of joint-stock banks ought to be submitted to some persons appointed by Parliament, and that certain clauses which are deemed to be "obvious and necessary," should be inserted by legal authority.

* Written 1838.

To this principle generally we should not object, provided it were not rendered practically annoying or injurious to the banks. We would as willingly submit a deed of settlement to a barrister appointed by Parliament, as to a barrister not appointed by Parliament; nor do we see the inconvenience of requiring that certain clauses, such, for instance, as are to prevent the company from carrying on any business but that of banking—should be legally required to be inserted in every deed of settlement. It would be desirable, however, that all such clauses should be declared and fixed by Act of Parliament. A barrister ought not to have the power of deciding what clauses are "obvious and necessary:" his duty should be merely to see that the provisions of the Act of Parliament had been fully complied with. We think that the inspection of the deeds of settlement of all the joint-stock banks in the kingdom by some able barrister appointed by government might lead to valuable results. It would produce greater uniformity amongst those important instruments: and it might lead to the incorporation of new provisions in some deeds, and to the omission of injurious ones in others: it might prevent improper clauses from being introduced by the ignorance or selfishness of individuals; and it might also prevent the necessity, which now so frequently occurs, of making alterations in deeds to meet unforeseen and unexpected circumstances. Nothing but a very strong case can warrant the alteration of a deed. If a company once consents to make an alteration in this instrument, it establishes a precedent for every shareholder to propose other changes, and hence there is no longer any certainty as to the constitution of the company.

We have seen some deeds in which there are provisions referring to matters rather too minute. They prescribe the way in which the books are to be kept, the accounts audited, and balance sheets prepared. These provisions are intended to act as a check upon fraudulent directors or managers. But nothing can be more futile. It is the height of folly to suppose that any deed of settlement can shelter a bank against the effects of ignorance or fraud in its management. It is folly to sit down and cogitate upon all the various ways in which a bank may be robbed, and then to suppose that, by some legal enactment, or by the insertion of some clause in the deed of settlement these frauds may be prevented. The legislature cannot protect parties who are indifferent to their own interests. If the shareholders appoint improper persons as directors they must take the consequences. Here legislators are likely to err. Every man attaches importance to his own profession, and legislators fancy that they can cure all the evils of the body politic by legislation. When a body of merchants once waited upon a prime minister of France, he asked them in what way he could most effectually serve them: they replied, "My lord, let us alone." There are many things connected with joint-stock banks which the legislature had better "let alone." Still we must acknowledge that

although deeds of settlement cannot protect a bank against ignorant or fraudulent management, they may be so constructed as to increase the difficulties of such practices being carried on.

It is a duty incumbent on every bank to get its deed of settlement signed as soon as possible. It may be questioned whether any bank should be allowed to commence business until this is done. It is true that every shareholder who has contributed any portion of the capital, and whose name is registered at the Stamp Office, is legally answerable to the whole extent of his property for all the debts of the bank. But it is equally true that until the deed is signed, the partners cannot take any proceedings grounded upon the provisions of the deed. For instance, a company cannot forfeit the shares of those partners who refuse to pay up any further calls: and it is doubtful whether in such a case the company would have a lien upon the shares of a partner who was in its debt. Other inconveniences might be pointed out; and, as recent facts have shown how ready people are to take a fraudulent advantage of the defective state of the law, we strenuously advise all new companies to get their deeds signed as soon as possible, especially by those shareholders with whom they are likely to have monetary transactions.

3.—Paid-up Capital.

It must be admitted that these are two very important questions—What amount of capital ought a bank to possess? and, What portion of that amount ought to be paid up before the commencement of business? We doubt, however, if questions of this kind can be satisfactorily decided by the legislature. The amount of capital required by a bank must depend upon a variety of circumstances. Banks in large cities, for instance, require more capital than banks in agricultural districts; and banks that have many branches require generally more capital than those that have no branches. We are ourselves friendly to large paid-up capitals; not only because they inspire more confidence on the part of the public, but because they render the bank better able to cope with any unforeseen difficulties that may arise in the money market: and of this we are quite sure, that if the joint-stock banks are desirous of putting themselves in a perfectly independent position with regard to the Bank of England, it can only be done by means of large paid-up capitals. We are fully aware, at the same time, that there is an evil in a bank having too large a capital. In this case, the bank having more money than it can employ in the ordinary course of its business, is under a temptation to advance loans upon dead or doubtful security, in order to find employment for its funds: or it may engage in speculations in railway or other companies, and thus sustain heavy losses. But we believe there are still greater risks attending too small a capital. In this case the bank obtains a less portion of public confidence, it is less able to afford legitimate assistance to its customers, and, in adverse

times, it is in danger of being overwhelmed by monetary tempests. But what amount of capital is too much or too little, must, as we have already observed, depend upon circumstances. It is always best, however, to be on the safe side.

But, although we cannot fix upon any absolute sum as the proper amount of capital for a bank to possess, we think we can suggest one or two criteria by which an accurate judgment may be formed on this important point.

One of these is the rate of dividend. We have always considered that a very high rate of dividend is a proof that the bank is carrying on a large business with a disproportionate capital; or else, that it is acquiring profits by other means than legitimate banking. The growth of a bank is like the growth of a child; it must have its infancy, its youth, and its manhood. When a young bank declares a high dividend it shows a precocity of growth that augurs badly for its future strength. A new bank cannot jump at once into a large and profitable business. Those great banking establishments that exist in London, and elsewhere, are the results of the accumulated strength of many years' duration.

Another criterion is the extent to which a bank is obliged to have recourse to the re-discount of its bills. We are not unfriendly to the system of re-discount. We are satisfied that in many cases it is necessary and proper for a bank occasionally to adopt it; and that it facilitates the profitable employment in one district, of the superabundant capital of another. But if a bank has throughout the year a greater amount of bills under re-discount than the amount of its paid-up capital; if it be so dependent upon this system that it could not abandon it without either stopping payment or ruining its customers, then we say that such a bank does not possess a sufficient amount of paid-up capital. If it be necessary to make some exceptions to this rule in regard to a few banks situated in manufacturing districts, where certain modes of transacting business have become too firmly established to be speedily changed, let it be recollected that these exceptions do not invalidate the rule itself.

The second point mentioned by the committee,—viz., the amount of capital to be paid up before the commencement of business—is also one of considerable difficulty. We may observe that the country is in a state of transition; it is passing from private banking to joint-stock banking, and hence a joint-stock bank may feel justified in commencing business with a capital disproportionate to the extent of business it may hope to acquire. It should, however, always possess the means of increasing its capital commensurate with its wants. A bank increases its capital in two ways—first, by the issue of more shares, and, secondly, by making further calls upon its shareholders. We are of opinion that the former should never be calculated upon as a means of increasing the bank's capital, since the taking of these shares must

always be optional with the public, and unless they should be at a premium the public will not take them at all. On the other hand, it is desirable that a bank should continue to issue shares as its business increases, for by this means its resources are increased, and there is a more ample guarantee for its obligations; but a bank should never incur engagements in reliance upon funds to be raised by a future issue of its shares. The mode of increasing the capital of a bank by a further call upon the proprietors is the most legitimate way. To be able to do this, however, the nominal value of the shares must be greater than the sum paid up; and hence we think the prejudice which the committee seemed to have entertained against a nominal capital is unfounded. A nominal capital confers upon the directors the power of calling up a further extent of real capital. What reasonable objection can there be to their having such a power? If further capital be wanted, this power will be exercised; and if further capital be not wanted, it will not be called for. Will it be contended that if capital should be wanted, it ought not to be advanced?

It has been intimated that the committee will recommend a *minimum* of paid-up capital: that no bank shall have less than a certain amount, say 100,000*l*. Should this measure be adopted, some of our smaller joint-stock banks would probably merge in other establishments, and become branches of larger banks; hence we should have fewer banks and more branches. But while the committee entertain this aversion to small banks, they seem to be equally unfriendly to the extension of branches. Now if all our banks are to have large capitals and no branches, how can the smaller towns and villages have any banks at all? Would it be worth while to raise a large capital for the purpose of establishing a bank in a place where there is but little banking business? We shall be anxious to see what measures the committee will suggest, but we feel confident that parliament will never pass any law that shall seriously affect the prosperity of joint-stock banks.

4.—Surplus Funds.

A foreign writer has observed that there are three things which Englishmen imagine they understand by intuition, without taking the trouble to study them: the first is politics, the second, medicine, the third, the art of mending a dull fire. To these ought to be added, banking. Every one fancies that he understands banking, as if it were born with him, or as if it ran in the blood. Editors of newspapers, professors of political economy, and members of Parliament, all discuss the most difficult and most practical questions in banking, without the least suspicion that their own want of experience is any impediment to the most profound knowledge of the subject. Thus the parliamentary committee of 1836 thought proper to give minute instructions to the directors and managers of the joint-stock banks as to the best way of

conducting their establishments. Amongst other things, the committee advised the directors and managers of banks of issue to follow the example of the Bank of England, by regulating their issues according to the foreign exchanges—that is, to issue notes freely when money happened to be already abundant, and to restrict their issues in times of scarcity and distress. We intend shortly to show the practical operation of this sagacious advice; but for the present we will confine ourselves to another equally wise observation made by the committee."

"The law does not provide that the guarantee fund shall be kept apart, and invested in government or other securities."

Of course not: what portion of the funds of a bank should be invested in government securities, is a question of practical management with which the law has nothing whatever to do. Suppose the inquiry had referred to insurance companies, or to gas companies, what should we think of such observations as the following:—"The law does not require that different tables should be used for male and female lives;" —"The law does not prescribe what quantity of coals should be used to produce a thousand feet of gas." All that the law has to do is to prevent the banks from robbing the public, and to prevent the public from robbing the banks. Their internal operations cannot be made a subject of legislation. But the committee seem to have supposed that they could draw up a code of laws which should be sufficiently "stringent" to insure the good government of the banks, without requiring, on the part of those who are entrusted with the management of these establishments, any knowledge, experience, or even integrity. In fact, the committee seem to have thought that a bank could be made to work like a piece of machinery, and must be made amenable to similar mechanical laws.

In the quotation we have given, the committee afford conclusive evidence of their deficiency in practical knowledge of the subject. The joint-stock banks do not generally divide amongst their proprietors the whole of their profits: a certain part is usually set aside to meet any contingencies, so that, should there be a falling off in the profits of any future year, this fund might be rendered available to secure the same rate of dividend. The wisdom of this course is obvious. By securing a uniformity of dividend, they produce a uniformity of price to their shares, and thus gambling transactions in their stock are effectually prevented. Some banks call this a "surplus fund," some a "reserved fund," and some a "guarantee fund." The term "guarantee" led the committee to suppose that this fund was intended as a guarantee to the public for the debts of the banks. Such an idea was ridiculous. The guarantee to the public comprises all the funds of the bank, including the whole paid-up capital, and also the liability of the proprietors. There is, therefore, not the slightest shadow of a reason for keeping apart this guarantee fund, or investing it separately in government or other securities.

This brings us to the consideration of a subject of considerable consequence, upon which we think it right to bestow a few observations.

There is no point of more importance in the practical government of a bank than the right employment of its funds. The funds of a bank consist of two parts:—first, the capital paid up by the shareholders—this, for the sake of distinction, may be called the real capital; second, the capital created by the bank in the course of its business, consisting of the deposits lodged by its customers, and the amount of notes or bills it may have in circulation—this may be called the banking capital. The funds thus raised are used chiefly in discounting bills, or advancing temporary loans to its customers; but it would not be proper that the whole of its funds should be thus employed. A portion should be placed in a more convertible form, so that if its deposits should be suddenly withdrawn, or payment demanded of its notes, the bank might be able to meet this demand *immediately*, without waiting to rediscount its bills, or call up its loans. A bank which is in this condition is in a sound and healthy state.

Two questions are here forced upon our consideration. In what way can this convertible portion of the funds of a bank be most advantageously invested?—and what portion of the funds ought to be thus employed? In reply to the first question we must answer, Exchequer bills, or government stock; and although we are aware of the objections that may be made against such investments upon the ground that they yield but little interest, and that they are liable to a fall in price which may occasion considerable loss; yet we cannot withhold our opinion that every well-regulated bank should possess securities of this description. With regard to the second question—what portion of the funds should be thus invested?—we confess we are unable to give any general answer. This must be left to the discretion of the directors and the managers, who will, of course, regulate their proceedings by the individual circumstances of their own bank, always recollecting that the provision to be reserved must be in proportion to the magnitude of the claims that may be made upon them, and the suddenness with which those claims may be advanced. Recent experience has shown that bills of exchange, even of the first character, are but a poor provision to meet the attacks of panic, and that indirect bills—*i.e.*, bills drawn on country parties, but made payable in London—are no provision at all. The Bank of England can, whenever she pleases, drive all such bills out of the market.

It occurs to us that Government might issue Exchequer bills, or debentures, for the express use of the banks, at a rate of interest equivalent to what would be yielded by the public funds. By this means the objection to such investments would be obviated. The banks would most readily make such investments, if there were no risk of loss from the falling of the price. But were the legislature to require the

joint-stock banks to invest a portion of their capital in the public funds, and at the same time not guarantee them against loss in so doing, it would amount to but little better than an act of confiscation.

5.—Banking Liberality.

One of the most dangerous virtues that a banker can possess is that of liberality. Half the private banks that have failed have failed through their liberality; and it is one advantage of the joint-stock banking system that the mode of transacting business forms a check upon injudicious liberality.

We have called liberality a banking virtue, and so it is. It is a virtue when a banker assists a worthy young man just commencing business, and, upon the ground of his good character, gives him a higher degree of accommodation than his small capital would warrant. It is a virtue when the banker assists a tradesman suddenly overcome by unexpected misfortune, and by timely aid enables him to weather the storm. It is a virtue when, by reasonable and temporary advances, the banker enables his customer to avail himself of favourable opportunities of making purchases, or in times of depression assists him to hold over his stock till the return of more favourable seasons.

But we say it is a dangerous virtue—a virtue liable to be abused and to be productive of disastrous results. It is an abuse of liberality for a banker to discount for his customers bills drawn upon irresponsible parties, or which do not arise out of commercial transactions. It is an abuse of liberality for a banker to supply a tradesman with capital to carry on his business, and to make large and permanent loans upon doubtful security. It is an abuse of liberality for a banker to assist his customer with money to engage in wild speculations—to monopolise a market, or to frame companies to carry on new projects.

Nevertheless, liberality is a popular virtue—a banker does not like to be called illiberal—and to say that a banker is illiberal usually implies a reflection. We believe, however, that in most cases, if the circumstances were known, this censure would be found to be the highest commendation. These charges are usually made by persons who have not been able to obtain from their banker the advances they desired, and are most frequently and most loudly made on the eve of a bankruptcy. When a swindler is baulked in his efforts, he complains of being injured.

It should be remembered that these complaints are made only by one class of the banker's customers—the class of borrowers. The class of depositors who lodge their money in their banker's hands make no complaint of this sort. They would more readily place their money with a banker who is known to be prudent and cautious in lending it out, than with one remarkable for indiscriminate liberality. If a private banker be liberal, it is usually at the expense of his creditors;

and if a joint-stock bank be liberal, it is at the expense of their shareholders.

In the evidence given before the parliamentary committee in 1832, it was stated that the joint-stock banks did not give so much accommodation to the public as the private bankers. We believe this is the fact, and we hope it is the fact. One great advantage that joint-stock banks have over private banks is, that there are more checks against imprudent advances. A private banker makes advances from personal attachment; but in a joint-stock bank, the private attachment of any director, should it exist, would be counteracted by the other directors. A private banker makes advances sometimes, because he is placed in a delicate position, and does not like to refuse. But in a joint-stock bank the odium of the refusal falls upon a body, and therefore hurts not any individual. A private banker is tempted to make advances by the high rate of interest and the large commission he shall obtain. But this consideration would have little weight with a board of directors, for their share of the profits is small, and a heavy loss would bring them into disrepute with the shareholders.

We think it the more necessary to warn the joint-stock banks against the dangers of liberality, because, at the present time, they have all an abundance of money, and the public securities yield but a low rate of interest. Hence, to get a high rate of interest, a banker is sometimes tempted to hazard the principal, or to lock it up on inconvertible security. But the banks should never forget that every security upon which any money is advanced should have these two qualities—it should be absolutely safe and immediately convertible. The manager or director who has need to be told that a bank ought not to lock up its funds in advances upon inconvertible security, should be told, at the same time, that he is fit for any other employment rather than that of a banker.

6.—Responsibility of Public Companies.

Our present argument stands thus:—The Righteous Governor of the world must reward the good and punish the wicked, whether those actions are performed by public bodies, or private individuals. But the public companies who now perform good or evil actions will not exist in a future world. Therefore public companies must be rewarded or punished in the present world. The only way of resisting this argument is either to maintain that public companies are not moral agents, and therefore not responsible for their good or evil actions, or that they will exist in a future world. The former part of the alternative we think we have sufficiently refuted—the latter is too wild to need refutation. All the promisings and threatenings of Scripture made to nations or other bodies of men have a reference to the present world, as it is only in the present world that such collective bodies can, in their corporate capacity, be either punished or rewarded.

PART IV.

THE APPLICATION OF REASONING TO THE ART AND THE SCIENCE OF BANKING.

Having stated in the preceding parts of this work some of the Principles of Reasoning, and given illustrations of them from our writings on Banking, we shall now consider the application of Reasoning to the Art and the Science of Banking. This part of our work will consist of five sections. Our first section will be upon Banking as an Art. Our second section will be upon Banking as a Science. The third section will be upon those mental operations that take place previous to reasoning, and their reference to Banking. In the fourth section we shall consider Mathematical and Moral Reasoning in reference to Banking. And in the fifth section we shall consider Inductive and Deductive Reasoning in reference to Banking.

SECTION I.

OF BANKING AS AN ART.

Science denotes knowledge; art denotes practice. Science consists in the investigation of causes and principles, with a view to the discovery of general rules. Art consists in the application of those rules to practical purposes. Although it is the province of a science to frame rules for the practice of the art, yet in the order of time the art existed before the science. The existence of the art led to the study of the science, and then the cultivation of the science led to the improvement of the art. Building is an art; architecture is a science. Seamanship is an art; navigation is a science.

When the art and the science are thus denoted by different words, the distinction is not attended with much difficulty. But in some branches of knowledge the same word denotes both the art and the science; and it is not always easy to define the exact boundary between the two. Such is the case with banking. We have said that the art existed before the science. We will therefore begin with the art, and in the present section we shall specify the chief operations, which as we conceive are included in the ART of Banking, and illustrate them by extracts from our own writings.

1. Banking as an Art includes the formation of the bank and the preparation of the deed of copartnership.

When any persons propose to form a joint-stock bank in any district, they procure the statistical returns of the district; such as the tables of the population—the exports and imports—the duties paid—the returns of the sales in the various markets—and every other information respecting the trade and wealth of the district. If these prove satisfactory, they take notice of the banks already established there, and observe whether they are joint-stock banks or private banks—whether strong or weak—and whether likely to oppose or to join any new establishment. If the existing banks be joint-stock banks, the projectors procure from the Stamp Office a list of the shareholders, in order to observe the strength of their proprietary, and whether they reside chiefly in the district.

Having satisfied themselves that a new bank would be successful, the first document drawn up is a prospectus. This document usually sets forth the great advantage of joint-stock banking to both the public and the shareholders, and then points out the facilities of the district in which the bank is proposed to be established.

Previous to issuing the prospectus, some leading persons in the district are requested to become members of a provisional committee for the formation of the bank, and they obtain the assistance of an influential solicitor, to whose office the applications for shares are usually addressed. The committee then appoint a secretary, or sometimes the office of secretary is filled by the solicitor.

As the applications come in, they are entered in a book prepared for the purpose. In the first column is entered the date of the application; then follow the name, profession, and residence of the applicant; then the number of shares applied for, and in a farther column the number of shares granted. After the committee have determined what number of shares to allot to each applicant, letters are addressed to the respective parties, informing them of the number of shares allotted to them.

The next operation is the preparation of the deed of partnership. This is called the deed of settlement, and must be signed by all the shareholders. It fixes the name of the bank—the places where business is to be carried on—and the denomination and number of the shares. It regulates the appointment of directors—the qualifications of shareholders—and the mode of holding meetings, transferring shares, and making dividends. It also provides for the winding up of the affairs of the bank, in case it should not be successful. So many joint-stock banks have printed their deeds of settlement, that any new bank would find no difficulty in procuring a copy. All banks now introduce a clause, providing that if one-third or one-fourth of the paid-up capital be lost, the bank shall be dissolved; and generally there is a clause authorizing any alteration of the deed by two successive meetings of the shareholders specially summoned for that purpose.

2. Banking as an Art includes the selection of the general principles on which the bank is to be conducted.

At the time the London and Westminster Bank was announced, it was contended by the advocates of the previous system, that the principles of joint-stock banking were wholly inapplicable to the wants and habits of the population of London. Had the founders of this bank possessed zeal without discretion, they would probably have disregarded the peculiarities of the field of their operations, and have adopted entirely the system of banking so long acted upon in Scotland. They seem, however, to have combined the enlightened views of statesmen with the caution and practical knowledge of men of business. Hence, they followed or discarded the principles of Scotch banking, according as they found them adapted, or otherwise, to the local circumstances of the London population. They seemed not so anxious to introduce a new system of banking as to guard against the imperfections of the one previously in existence. From the original prospectus and other documents issued by the company, we learn that the following principles were those ultimately adopted.

That the bank should consist of an unlimited number of partners. This is essential to its character as a joint-stock bank. It was ascertained that within the previous twenty years about twenty private banking-houses had stopped payment in London—that by most of these failures the public had sustained considerable losses, and that great difficulties and embarrassments had been occasioned by the interruption to business and the want of confidence which these failures had occasioned. A bank, composed of several hundred partners, all of whose property would be answerable for its obligations to the public, seemed the most effectual way of preventing the recurrence of these evils. To show the strength of the company, and the extent of the confidence to which they are entitled, a list of the shareholders is published with the

annual report of the directors. Since the Act of 1844, these names have also been published at the commencement of each year in a supplement to the *London Gazette.*

A second principle adopted was, that the bank should have a large paid-up capital.

It was observed that the London bankers did not carry on business with their own capital, but merely upon their credit: they were supposed to be men of property, and, in some cases, this supposition constituted the whole of their working capital. Hence, in some instances, London bankers had stopped payment who were perfectly solvent; but their property was not engaged in their business, and could not suddenly be realized to pay their debts. To obviate these inconveniences —to be prepared at all times for a withdrawal of its deposits—to be able to give adequate accommodation to its customers—and to support public confidence in seasons of extreme pressure, a large paid-up capital was deemed requisite. No idea seems to have been entertained of remaining satisfied with a small capital in order to pay larger dividends. The directors do not appear to have regarded themselves as mere agents, employed to obtain the most rapid return for a sum of money; but they acted as the founders of an establishment destined to take a high rank among the national institutions of the country. The capital of the bank was fixed at 5,000,000*l.* sterling, divided into 50,000 shares of 100*l.* each. All these shares are in the hands of the partners, and the paid-up capital of the bank is thus 1,000,000*l.*, with a power in the directors of calling up an additional sum of 4,000,000*l.* sterling.

The last principle we shall mention as adopted by the London and Westminster Bank, is the system of branches.

This system, to the extent to which it is now carried, does not seem to have been contemplated by the original founders of the bank. The first prospectus announced merely that a bank would be established in the City, with a branch at the West-end of the town. But a power to establish other branches was inserted in the deed of settlement, and it was soon observed that, from the increasing extent and business of London, there were districts which were inadequately supplied with banking accommodation. In these districts the inhabitants were compelled either to forego all banking facilities, or to submit to the inconvenience of keeping their account with a bank at a distance from their habitation. It was to meet the public wants, more, perhaps, than with any sanguine expectation of reaping any large amount of immediate profit, that the directors extended their branches. Peradventure, too, it was feared that unless the London and Westminster Bank occupied these districts, the inhabitants might be induced to form among themselves small joint-stock banks with inadequate capital, and thus have impaired the respectability of the system. In one instance this in fact

actually occurred. The mode of conducting business is the same at the branches as at the City-office. A customer's cheque can be paid only at the branch on which it is drawn, but he may have money placed to his credit with that branch at any of the other establishments. Those country notes that are made payable at the London and Westminster Bank, are, as a matter of courtesy, paid at any of the branches. Each branch makes both daily and weekly returns of its transactions, which are laid before the directors; and the affairs of all the branches are subjected to the personal inspection of the general manager: at the same time all the arrangements tend to localize the branches so as to give them as much as possible the character of independent banks. The managers are selected for their experience in banking, and they give immediate replies to the inquiries of both their customers and the public. They are ready to afford every facility to the parochial and other authorities, in conducting the financial arrangements of the districts. They allow the same rate of interest on deposits which is allowed at the City-office: and in making advances or discounts they are not restricted to the amount which their own funds can supply. Thus each district has, in a branch bank, all the advantages that could be derived from an independent local bank, combined with the additional security and accommodation to be obtained from a more extended and wealthy establishment.

3. Banking as an Art includes the announcement of the terms of transacting business with the public:—

It was observed that the London private banks were adapted only for the rich. An indispensable condition of having an account was that a certain sum should be kept unproductive in the banker's hands. Thus the middle class of society, who had the means of employing the whole of their capital in their respective occupations, were altogether excluded from the advantages of banking. To remedy this defect, the London and Westminster Bank determined to open accounts with persons who had not the means of keeping large balances unemployed, but who were willing to pay the bank a small commission for conducting their accounts. The principle of commission is not practised in Scotland with regard to current accounts, as the banks look for payment chiefly by the issue of their notes. In this country the principle is adopted in the provinces, and even by the London bankers in regard to their country accounts. The application of this principle to London accounts was an improvement introduced by the London and Westminster Bank, and it brought the advantages and conveniences of banking within the grasp of a large class of the community to whom they were previously denied. The expense of keeping a banking account was also reduced by the prohibition of presents or Christmas-boxes to the clerks. Although the system of Christmas-boxes is

sanctioned by the Bank of England,* as well as by the private bankers, it is, we consider, a practice more honoured in the breach than in the observance. Whether these presents are regarded as taxes upon the customers, or as charitable donations to the clerks, they were deemed to be equally objectionable.

A further attempt was made to popularize the system of banking in London, by allowing interest upon small sums of money lodged on deposit receipts. All the witnesses examined before the Parliamentary Committees of 1826 had borne testimony as to the beneficial effects of this system in Scotland. And although the London and Westminster Bank, not being a bank of issue, could not regard these small deposits as an instrument of increasing its circulation of notes, yet it was thought that the system might be rendered a source of profit to the bank, and certainly an advantage to the community. The savings banks could receive no more than 30*l.* from a depositor in each year, and only 150*l.* in the whole. Those parties who had further sums they wished to deposit in a place of security, upon the principle of receiving interest on the sums thus lodged, were provided with such a place in the London and Westminster Bank. Sums from 10*l.* to 1,000*l.* are received on deposit, and interest allowed at a known rate, and they are at all times repayable upon demand without notice.

The London and Westminster Bank have not adopted the system of cash credits as practised in Scotland. These credits are valued by the Scotch banks chiefly as an instrument for the issue of their notes; and it may be questioned whether the system can be rendered a source of profit to a non-issuing bank without imposing heavy charges in the form of interest and commission upon the customers.

While, however, the founders of the bank were thus regardful of the industrious classes of the community, they were not inattentive to the interests of the wealthy. Professional men, merchants, and gentlemen of fortune, have often large sums of money in their hands for a short time, awaiting favourable seasons of investment. For these sums the private bankers would allow no interest. The London and Westminster Bank determined to take temporary or permanent lodgments of sums of 1,000*l.* and upwards, upon special agreement as to the rate of interest and time of repayment. The rate of interest is usually governed by the state of the money market, and the principal is repaid at a fixed time, or at a few days' notice, as may be agreed upon. Parties may lodge money upon an interest account, who have no current account, and those who have current accounts may transfer any portion of their balance to an interest account; but the bank allows no interest on the balance of a current account. It is considered that a large portion of the fluctuating balance of a current account must be kept in the till to meet the daily cheques drawn by the customers; that the remainder

* In the year 1849 this practice was discontinued by the Bank of England.

must be invested in the most available, and therefore the least productive securities; and that considerable expense is incurred by books, cheques, salaries, &c., in conducting these accounts;—and hence that the bank could not afford to grant any rate of interest which it would be worth while for the customers to receive. A person, therefore, may have two accounts—a current account and a deposit account. Upon one he receives interest—upon the other he receives none. The London and Westminster Bank think it better to keep these two accounts distinct, than to adopt any system of amalgamation.

4. Banking as an Art includes the appointing of clerks, and the establishing of a proper system of book-keeping:—

The distribution of the duties of the various clerks is a matter of no small importance. Experience is the only efficient guide in making such arrangements. We may, nevertheless, lay down a few general principles. The great division of the business of a bank office is into the cashiers' department and the accountant's department. In London banks there is a third—the tellers', or out-door department. In the distribution of duties, it is desirable that the accountant's department should be a check upon the other departments. The cashiers must not have the control of the books, nor the accountants the care of the cash. The accountant's books should show what amount of cash is in the hands of the cashiers; and it is the business of the cashiers to show that they have that amount of cash which corresponds with the accountant's books. If the same officer has the care of the cash, and the command of the books, he may abstract a portion of the cash, and alter the books to make them correspond. It is further desirable, in large establishments, that two books which act as a check upon one another, should not be kept by the same clerk. While it is not proper to indulge a spirit of suspicion in regard to individuals, it is advisable that the duties of a bank office should be so distributed that the intromissions of any one clerk, either by the abstraction of cash or the falsification of the books, should be liable to immediate detection by the entries in some book kept by another clerk. For the same reason, it is proper that any document issued to the public (such as deposit receipts, drafts on London, &c.) should be signed by two officers, of whom one should belong to the cash, and the other to the accountant's department. There ought to be a complete division of labour in a bank. Every clerk should have fixed duties to perform, and every duty, however unimportant, should be assigned to some particular clerk. If anything is neglected, there should be no doubt as to who is to blame. No one should be able to say, "It was not my business; it was yours." Nor ought any duties to be assigned in common to two or three clerks, to be performed by them as each may find time. In this case, each will do as little as he can, and nothing will be done well. If any dispute

arises among the clerks as to the due division of their labours, a reference should be made to the chief clerk, who will give to each man his work, and hold him responsible for its proper performance.

In all banks the junior clerks have lower salaries than the senior clerks. In Scotland, a clerk usually serves an apprenticeship of three years, during which he receives but a small salary. This plan has been introduced into some of our country banks. In London it does not exist. In the private banks, a junior clerk usually commences with 60*l.* a-year, and a portion of the Christmas money. In the joint-stock banks, where no Christmas money is allowed, the commencing salary is usually 80*l.* But the rules of advance are various, and, indeed, must be so, depending as they do, upon the prosperity of the banks, and other contingent circumstances. One bank may assign a certain fixed annual increase to each clerk, whether he advance in rank or not. In this case, his salary will be regulated entirely by the number of his years of service. Another bank may have a fixed salary for each post, and a clerk has no increase of salary except when he takes a step in rank. Another bank may adopt a scale of salaries combining the principles of the other two. For instance, every post in the bank may have a fixed *minimum* salary. But each clerk holding a post for a certain period (say for five years) has an annual advance for that period. Then he stops, and receives no farther advance until he is promoted to the next post, where again he becomes entitled to the annual advances belonging to that post. We give no opinion as to the respective merit of these plans. But there is one principle we would enforce—that the salaries of the clerks should be regulated by the prosperity of the bank. If the bank is prosperous, the clerks ought to share in its prosperity; and if the bank is unfortunate, the clerks must consent to share in its ill fortune. But, under any circumstances, a scale of salaries is desirable. It prevents caprice on the part of the bank, and jealousy on the part of the clerks. The amount of salary in each case should be fixed by rule, and not by favour.

Most clerks will be more fitted for one office than the other, and it is desirable that each clerk should be placed in the department for which he is best adapted. Where there is no peculiar adaptation, and where there is no marked difference among the clerks, the promotion should go according to seniority—not seniority in regard to age, but seniority according to the time they have been in the bank. But it will often happen, not only in the first, but also in subsequent steps of advancement, that the clerk who is entitled to a vacant post by length of service, is not so well qualified for it as some of his juniors. But even in this case, the individual should not be passed over, if he can perform the duties with an average degree of efficiency. Should he, however, be wholly unqualified, or fall below mediocrity in his qualifications for the office, there should be no hesitation in promoting over him some

other clerk better adapted for the office. As, however, all such cases will give rise to some suspicion of favouritism, and as the party who is passed over is sure to think himself unfairly treated, it is desirable that the clerk thus promoted should possess such a marked superiority over the other, that no doubt can exist of the justice and propriety of the arrangement.

A good system of book-keeping cannot be too highly valued. Its object is not merely to secure accuracy of accounts between the bank and its customers. A further object is to classify and arrange all the transactions in such a way as easily to produce a weekly balance-sheet, showing the actual condition of the bank. Nor must it be supposed that such abstracts or balance-sheets are intended merely for the use of the directors. They are of the utmost use to the manager, and should be the subject of his constant study. A manager who, day after day, attends only to individual transactions, and that, too, possibly in a state of mental excitement, may involve his bank in difficulty, even though each transaction may, upon its own ground, be perfectly justifiable, unless he attends to those summaries and classifications of his transactions which are presented in the weekly balance-sheet. He will there see on one side the means of the bank, and on the other the way in which his funds are employed. He will notice if his loans, or overdrawn accounts, or past-due bills, are unduly increased. If a good system of book-keeping does not prevent a manager from going wrong, it will prevent his going wrong without knowing it. If he act unwisely, his balance-sheet will stare him in the face, and remind him of his faults.

It is a great defect not to take an accurate estimate of the losses every half year before striking the balance of profit and loss. It is clear, that common sense and common honesty require that the loss should be taken into account as well as the profit. Yet some of the banks that failed went on, year after year, exhibiting a balance-sheet to their shareholders, showing a respectable profit, which enabled the directors to declare a fair dividend, and to make an addition to the reserved fund. While the annual balance-sheets thus showed a steady increase of profit, the bad debts had actually eaten up the whole of the capital.

Another defect is, not to have an account in the general ledger, showing the amount of bills re-issued or re-discounted. The amount of these bills not due should appear on both sides of the account—on one side as a liability, and on the other as an asset. For want of doing so, some banks have not been able to ascertain easily what amount of bills they have had under discount. But it is important to know this. For it may be expected that, during a season of pressure, no small portion of these bills will be returned unpaid, and the bank must find funds to take up its endorsements. If they fail to do this, it amounts to a stoppage of payment. In fact, the amount of such bills suddenly returned has in some cases been the *immediate* cause of a bank stopping payment.

We have no horror of numerous branches. When we see that in Scotland the largest and most prosperous banks have each a large number of branches, we are led to believe that branches are not attended with any dangers which cannot be overcome by wise administration. At the same time, we are ready to admit, that numerous branches require a peculiar mode of government, and a rigid system of discipline. The chief officer of such a bank should be a good banker, and something more. He must be a good administrator; that is, skilled in the administrative department of good government.

In the first place, each branch must have a good system of bookkeeping, and the system must be uniform at every branch. Secondly, Care should be taken to appoint efficient officers. Thirdly, A code of laws should be drawn up, and the branch manager should be distinctly informed as to the extent to which he may exercise his discretion, and what cases must be referred for the consideration of the directors. Fourthly, Weekly returns must be made to the head office of all the transactions, and a half-yearly balance-sheet attended with full supplementary details. Fifthly, Special reports should be occasionally required, as special circumstances may occur, either with reference to the branches generally, or with reference to a branch individually. Sixthly, An inspector should be appointed for the purpose of visiting the branches. His duties will be to explain the instructions of the directors, and to see that they are properly observed—to maintain a uniform system of transacting business at all the branches—to instruct the officers of the branch in their duties when necessary, and to communicate the knowledge he has acquired in visiting the other branches—to answer any difficult or knotty questions that may be proposed to him by the manager, and to consult with the manager as to the best means of promoting the interests of the branch—to observe the talents and capabilities of the several officers, and to recommend for promotion any who seem to have qualities that might be usefully employed in a higher department in the bank. In large banks there are usually several inspectors.

Branches should always be kept in strict subordination to the head office. Prompt obedience to orders is a duty that must be rigidly enforced. The Chairman of the Northern and Central Bank stated to the Parliamentary Committee, that at some of the branches where the heaviest losses had occurred, the managers had not obeyed the orders they had received from the directors. Similar accusations were made against some of the branch managers of the Commercial Bank of England. It is quite impossible for any bank to be well administered as a whole if every branch is allowed to exercise an independent authority. Upon this ground, some parties object altogether to the appointment of local directors at the branches. A local board, consisting of the branch directors and the manager, are more likely than

the manager alone to assume independent authority — to postpone carrying out the directions they may receive from head-quarters—and to take upon themselves the responsibility of acting somewhat at variance with the strict letter of their instructions. And although local directors may sometimes be useful in extending the connexions of the bank, or in aiding the managers with information or advice, yet, for the above or other reasons, they are now in England but very seldom appointed. The branch is under the sole care of a manager. The general manager of the bank is not merely the manager of the head office, but has authority also over all the branches. Whenever necessary or expedient, he issues circular letters of instruction to the branch managers, and these instructions the branch managers are expected to obey.

5. Banking as an Art includes the taking of means to ascertain the character of the customers of the bank.

A banker will exercise due caution in taking new accounts. He will expect the new customer to be introduced by some person to whom he is personally known. The more respectable the introducer, the higher opinion will the banker entertain of the party introduced. If a party apply to open an account without such an introduction, he is asked to give references to some well-known houses. He is expected to state to the banker the kind of business in which he is engaged, and the extent of accommodation, if any, that he is likely to require. He will state the kind and character of the bills he will have to offer to discount, and mention any peculiarity in his business or circumstances that may occasionally require especial consideration. It is a great folly in a party opening an account, to make any representation that will not afterwards turn out to be correct. Every banker is anxious to avoid taking shabby accounts; and especially such as are opened for the purposes of fraud, or to obtain a fictitious credit, or to get undue accommodation. It is considered to be not advisable to take the account of a party who has another banker, especially if he opens the account for the purpose of getting additional discount. The object of a party keeping two bankers is usually to get as much accommodation as he can from each. If an account is brought from another bank, the reason of the removal should be distinctly stated, and the banker will accept or reject it, according to circumstances. It is bad policy in a banker to attempt to draw away the connexions of another bank, by offering them greater accommodation. It is also usually bad policy to take the accounts of parties residing at a distance, as their transactions do not come under the notice of the banker; and the fact of their passing by the banks in their neighbourhood to go elsewhere, is one that should excite suspicion. It is not advisable for London bankers to take the loan or discount accounts of private individuals who reside in the country. They should be referred to the bankers in their own districts.

A banker will take means for obtaining and recording information. He should not, as we have said, keep any books himself. But he ought always to have in his room, ready for immediate reference, if necessary, "the General Balance Book," containing the weekly balances of the general ledger, which will show the weekly progress of his business for several years past,—"the Daily Balance Book," showing the daily balance to the credit of each of his customers in the current-account ledger,—"the Weekly Discount Balance Book," showing the amount of discounts, loans, or other advances which each customer has every Saturday night,—"the Inspection Book," showing the amount of bills bearing the names of houses who do not keep an account with him,—"the Information Book," containing the character of all the houses about whom he has had occasion to make inquiries,—and, finally, "a Private Memorandum Book," in which are entered any special agreements that he has made with his customers. It is also useful to a banker to have a list of his customers, classified according to their trades or professions—such as corn merchants, leather factors, grocers, solicitors, &c., &c. The banker would thus see at a glance among what classes of society his connexions lay. When any public event was likely to affect any class,—such, for instance, as the corn merchants—he would see how many of his customers were likely to be affected. By thus, too, bearing in mind the trade or profession of his customers, he would be able to judge more readily whether the bills they brought him for discount had arisen out of their business transactions.

The operation which is called "nursing an account," sometimes requires considerable prudence, tact, and perseverance. A banker having made considerable advances to a customer, suddenly discovers that the party is not worthy of the confidence he has placed in him. If these advances should be called up, or discontinued, the customer will break, and the banker sustain loss. The banker must be governed by the circumstances of each case. It is sometimes best to continue to discount the good bills, and refuse those of a different character; and thus gradually weed the account of all the inferior securities. Sometimes he may get the customer to stipulate that he will diminish his advances by certain fixed amounts, at certain periods; and thus, by alternately refusing and complying, the banker may at length place himself in a state of security. At other times, the banker may offer to make still further advances, on condition of receiving good security also for what has been already advanced. This plan is advisable, when the additional advance is not proportionably large, and the security is not inconvertible, otherwise the plan is sometimes a hazardous one. It requires some courage to look a loss in the face. And it has occurred that a banker, rather than sustain a small loss, will consent to make a further large advance upon inconvertible security; and the

locking up of this large advance for an indefinite period, has proved the greater evil of the two. In fact, some of the largest losses of fallen banks have been made in this way. They have, in the first instance, made an imprudent advance; rather than sustain this loss at once, they have made a further advance, with a view to prevent it. The advance has at last become so large, that if the customer falls, the bank must fall too; for the sake of self-existence, further advances are then made; these too are found ineffectual, and ultimately the customer and the bank fall together.

6. Banking as an Art includes the selection of the kind of securities on which the bank will make advances.

A London banker is always anxious to avoid dead loans. Loans are usually specific advances for specified times, either with or without security. In London, advances are generally made by loans; in the country, by overdrafts. The difference arises from the different modes of conducting an account. In London, the banker is paid by the balance standing to the credit of the account. A customer who wants an advance, takes a loan of such an amount as shall not require him to keep less than his usual balance. The loan is placed to the credit of his current account, until the time arrives for its repayment, and then he is debited for the principal and the interest. The country banker is paid by a commission, and hence the advance to a customer is made by his overdrawing the account, and he is charged interest only on the amount overdrawn.

Loans are divided into short loans and dead loans. Short loans are usually the practice of the London bankers: a time is fixed for their repayment. Dead loans are those for the payment of which there is no specified time; or where the party has failed to make the repayment at the time agreed upon. In this case, too, the loan has usually been made upon *dead*—that is, upon inconvertible security. Without great caution on the part of the banker, *short* loans are very apt to become *dead* loans. A loan is first made for two or three months; the time arrives, and the customer cannot pay; then the loan is renewed, and renewed, and renewed, and ultimately the customer fails, and the banker has to fall back upon his securities.

The rule of a banker is, never to make any advances, directly or indirectly, upon deeds, or any other *dead* security. But this rule, like all other general rules, must have exceptions; and when it is proper to make an exception, is a matter that must be left to the discretion of the banker. He should, however, exercise this discretion with caution and prudence, and not deviate from the rule without a special reason to justify such deviation.

Among country bankers, in agricultural districts, advances upon deeds are not considered so objectionable as in London. A landed

proprietor, who wants a temporary advance, places his deeds in the hands of his banker, and takes what he requires. The banker thinks he can have no better security; but the loan is usually for only a moderate amount, and is paid off within a reasonable time. In the country the character and circumstances of every man is known. A landlord who wants an advance to meet immediate demands, until his rents come in, seems fairly entitled to assistance from his banker. But should a landlord, who is living beyond his income, ask for an advance almost equal to the value of his deeds, he would not be likely to obtain it. Every banker is aware, that when deeds are lodged as security for loans, or discounts of any kind, interest upon the advance cannot be charged at a higher rate than five per cent.*

Another kind of security is bills of lading, and dock warrants. Advances upon securities such as these must be considered as beyond the rules which prudent bankers lay down for their own government; they can only be justified by the special circumstances of each case. In advancing upon bills of lading, the banker must see that he has *all the bills of the set;* for if he has not *all*, the holder of the absent bill may get possession of the property. It is also necessary that he have the policy of assurance, that, in case the ship be lost, he may claim the value from the insurers. In advances upon dock warrants, the banker should know that the value of the goods is equal to his advances, and will also give him a margin, as a security against any fall in the market price. But, in truth, no banker should readily make advances upon such securities. Now and then he may take them as collateral security, for an advance to a customer who is otherwise respectable; but if a customer requires such advances frequently, not to say constantly, it shows that he is conducting his business in a way that will not ultimately be either for his own advantage or that of his banker.

A banker should never make any advances upon life policies. They may become void, should the party commit suicide, or die by the hand of justice, or in a duel; or if he go without permission to certain foreign countries. The payment may be disputed, upon the ground that some deception or concealment was practised when the policy was obtained. And, in all cases, they are dependent upon the continued payment of the premiums.

7. Banking as an Art includes the regulation of the amount of cash to be kept in the till.

The amount of money which a banker will keep in his till depends upon circumstances. First, the amount of his deposits. It is natural to suppose that when his deposits are large, he will keep more money to meet them than when his deposits are small.—Secondly, the amount

* The law was altered by Act passed in the year 1849.

of his daily payments. These will not at all times correspond with the amount of the deposits; for some accounts are more *operative* than others. On commercial accounts, for instance, the payments will be much heavier in proportion to the average balance than on accounts which are not commercial. The City bankers pay much larger sums every day in proportion to the amount of their deposits, than the bankers at the West-end.—Thirdly, if a banker issues notes, he will keep a less amount of other money in his till. The popular opinion is, that he keeps more, as he has to provide payment for his notes as well as his deposits. This is true in seasons of pressure. But in ordinary times he keeps less, as he pays the cheques drawn on account of his deposits with his notes, and these notes often get into the hands of another banker, with whom he settles by a draft on London. His reserve to meet his notes is kept, not in his own till, but in London, where it probably yields him interest. Indeed, when his deposits are withdrawn in large amounts, they are more usually withdrawn by a draft on London than in any other way.—Fourthly, the number of the branches. If a bank has many branches, the total amount of cash kept in the tills of the head office and all the branches put together, will be considerably more than would be required if the whole of the business were collected into one place. In the case of a run the difference is considerable, as every point open to attack must be well fortified. The stoppage of one branch, even for a short time, would bring discredit upon the whole establishment.—Fifthly, in London the amount of notes to be kept in till will be affected by the privilege of clearing. Those bankers that "clear," can pay bills and cheques upon them by the bills and cheques they have upon other bankers. Those banks that do not clear must pay all the bills and cheques upon them in bank notes before they receive payment of the bills and cheques they have upon other bankers. Hence they must lock up every night with a larger amount of cash in their vaults.

We need hardly say that with every banker the amount in the till will fluctuate from day to day. Though a banker has a certain average amount in his own mind, below or above which he does not swerve very widely, yet the cash-book will seldom be exactly this amount. Sometimes he will strengthen his till, in the prospect of large payments that may come upon him suddenly. At other times he will run his till low for a day or two, in expectation of large sums that will shortly be due to him. During the day, too, either the receipts or the payments may be heavier than he expected, and hence, now and then, the cashier reports to the chief clerk or to the banker the state of the till, in order that, if necessary, it may be replenished. The temperament of a banker, too, has some effect in this case. Some bankers are so cautious that they will "lock up" with a large amount of cash; others are so anxious to make profit, that they will keep their cash very low. The state of the money market will also influence the tills of the bankers. When money is abundant a banker

will lock up with more money than he wants, because he cannot employ his funds. When money is so scarce as to betoken a pressure, he will also lock up strong, so as to be prepared for any emergency. In fact, there can be no general rule for regulating the amount of the till. Every banker must be guided by the experience of his own bank. The directors of the Bank of England consider that their reserve in bank notes and gold should be equal to about one-third of their deposits. From the accounts published by some of the London joint-stock banks, it would appear that the "cash in hand" is equal to about one-fifth or one-sixth of their liabilities. Even this, we conjecture, is a higher proportion than that which is generally kept by London bankers, especially by those who settle their accounts with each other at the clearing-house.

8. Banking as an Art includes the proper investment of the surplus funds of the bank.

Of the various kinds of Government stock, consols are the best, as there is a more ready market for this kind of stock, and money can usually be borrowed on them until the next account day; so that, if a banker has only a temporary demand for money, he may thus obtain it at a moderate interest, when, by selling his stock at that time, he might sustain loss. The Bank of England has recourse, sometimes, to this mode of strengthening her reserve. Sometimes, too, a banker may make a profit by lending his consols. At the monthly settlings, among the brokers, stock is sometimes in demand, and money may be obtained upon consols, until the next settling, without paying any interest; and the banker may employ the money in the meantime. As, however, the rate of interest is usually low in such seasons, his profit will rarely be great.

It is not advisable, however, that all the stock a banker holds should consist of consols. For a month before the payment of the dividends in January and July, this stock is shut, and during those times he can neither sell his stock, nor borrow money upon it. This may be inconvenient, and he can only avoid this inconvenience by selling or lending his consols, just before the shutting, on the best terms he can. To avoid either of these alternatives, it is better he should divide his stock, and hold half the amount in consols, and half in reduced 3 per cents. The dividends on the latter stocks are payable in April and October, so that by this means the banker will always hold an open stock: when consols are shut, the reduced 3 are open, and *vice versâ*. There are no time bargains in the reduced 3 per cents.; but in ordinary times money can be borrowed on them at the market rate of interest. In seasons of pressure these are not so saleable as consols. Bank stock, India stock, and long annuities, not being readily convertible, are not generally good investments for bankers.

Some bankers avoid all Government stock, and give a preference to exchequer bills. They have some advantages. As the Government must pay the amount demanded in March or June, when they become due, there can be no loss beyond the amount of the premium at which they were purchased. A banker, too, can borrow money upon them quietly and secretly. A transfer of stock is always known; and, if for a large amount, will, when money is scarce, excite notice, and give the impression that the banker is compelled to realize some of his securities, to meet demands made upon him by his depositors. But a banker can hand his exchequer bills to a stock-broker, who will bring him the money, and the party who has granted the loan will know nothing about the party for whom it was required. On the other hand there are some disadvantages. Almost every change in the market value of money affects the price of exchequer bills; and whenever money becomes abundant, the Government are very apt to reduce the rate of interest much below that which can be obtained from consols. But a greater objection is, that even in ordinary times, they are hardly saleable in large amounts. There are not now so many exchequer-bill jobbers as formerly, and hence these bills are not so readily saleable. On this account, the Bank of England, who were formerly large holders of exchequer bills, have changed their system, and are now holders of stock. The City bankers, too, prefer placing their money with the bill-brokers to investing it in exchequer bills. But they are still a favourite mode of investment with bankers at the West-end.

East India bonds yield a higher interest than exchequer bills, and the interest cannot be reduced until after twelve months' notice from the East India Company. But they are by no means so saleable. Money, however, may generally be borrowed upon them, and the loans of the Bank of England are always announced to be granted on "exchequer bills, India bonds, and other approved securities."

Bonds of corporations, or of public companies, are by no means proper investments for a banker, except to a very moderate amount, and when they have a short time to run. They may, however, be taken as security for temporary advances to respectable customers.

Good commercial bills, of short dates, have this advantage over Government stock or exchequer bills, that a banker is sure to receive back the same amount of money which he advanced. He can calculate, too, upon the time the money will be received, and make his arrangements accordingly. And if unexpectedly he should want the money sooner, the bills can, in ordinary times, be rediscounted in the money market. Another advantage is, that he is able to avail himself of any advance in the current rate of interest. He will get no higher dividend from his investment in Government stock, should money afterwards become ever so valuable. But with regard to bills, as they fall due he will receive a higher rate of discount with the new bills he

may take, and thus, as the market rate of interest advances, his profits will increase.

The bankers of Lancashire usually keep the whole of their reserves in bills of exchange. If they have a "good bill case," that is, a large amount of good bills in their case, they think themselves prepared to meet any emergency. Their objection to Government securities is founded, first, upon the low rate of interest which they yield; and secondly, the possibility of loss, from fluctuations in price. They contend, too, that good bills of exchange are more convertible than even exchequer bills; and, even if not convertible, the money comes back as the bills fall due, and thus the reserve is constantly replenished

In our opinion, it is best for a banker not to adopt exclusively any one of the investments we have noticed, but to distribute his funds among them all. We have seen that practical bankers of high standing have been in favour of Government securities, as being at all times convertible. The objection on the part of others has been, that the value of these securities very much fluctuates, and as their realization will be required only in seasons of pressure, when the funds are low, it is sure to be attended with loss. On the other hand, it may be stated, with regard to "loans on demand," that the recent failures of bill-brokers have shown that the "demand" may not always be readily met. And with regard to "brokers' bills," the numerous failures among houses of the first standing have proved that great losses and most inconvenient "locks-up" may occasionally take place from such securities. Without condemning other modes of investment, we are strongly inclined to favour Government securities, though fully conscious of the losses they may occasionally produce. There is one consideration that must be taken into account: a bank that has large surplus funds, if it makes no investments in Government securities, will be strongly tempted to invest their funds elsewhere in other securities that may not be so convertible. It is true that more interest may for a time be obtained, but ultimately the bank may, though in a state of perfect solvency, be compelled to stop payment from being unable to realize its investments.

Another advantage of a large investment in Government securities is, that the bank, by the publication of its balance sheet, has always the means of showing to its depositors that a large portion of its deposits is at all times amply secured. The Bank of England states the amount of their "Government securities" distinct from the "other securities." It may so be that the "other securities" are as good as the Government securities, and perhaps more profitable, but the public do not know that to be the case; and were all the investments in "other securities," they might not feel the same degree of confidence as to the prompt repayment of their deposits. The same principle applies to other banks. And it may reasonably be supposed that between two banks in similar

circumstances as to other respects, depositors would rather lodge their money in a bank which had a large amount of Government securities than in one which had none.

9. Banking as an Art includes the proper distribution of the profits among the partners.

The first appropriation of the profits is, to pay to the shareholders a dividend on the capital. But all the profits are not usually thus appropriated; a certain portion is generally retained as a rest, or surplus fund, or, as it is sometimes called, a guarantee fund. This last title has led to an erroneous impression with regard to the nature and purposes of this fund. It is not designed as a guarantee to the depositors for the amount of their deposits—these are guaranteed by the paid-up capital and the liability of the shareholders—but as a guarantee to the shareholders for the uniformity of their dividends. Should the profits in any one year fall below the sum necessary to pay the usual dividend, the deficiency may then be taken from the surplus or guarantee fund. The amount of this fund, therefore, will be regulated by the amount of the transactions, and the consequent danger of loss. But it sometimes happens that after paying a liberal dividend the surplus fund accumulates far beyond the sum necessary for the above purpose. In this case a portion of the fund may be employed either in still further increasing the dividend, or it may be distributed to the shareholders in the form of bonuses, or it may be added to the capital. The course to be adopted must depend upon circumstances. When the capital is small, it will probably be best to make an addition from the surplus fund; but when the capital is sufficiently large, the best way will be to give an occasional bonus to the proprietors. This is usually better than increasing the dividend. For if the dividend be once increased, the same rate of dividend will always be expected. And it is better not to make any advance, unless there is good reason to believe that the same rate will always be maintained.

The Rest, or surplus fund, or guarantee fund, as it is sometimes called, consists of the accumulation of surplus or remaining profits after the payment of the dividend. The object of this fund is, not to guarantee the public for the security of their deposits, but to guarantee to the shareholders the uniformity of the dividend. If, in any one year, the profits fall below the amount required to pay the usual dividend, the deficiency is taken from the rest or surplus fund. The amount of this fund should be regulated by the extent of the business and the probable loss that might arise in conducting that business. If the fund is five or six times the amount of the deficiency that might possibly arise in making up the annual dividend, it would appear to be sufficient. For if, after making up this deficiency for one, two, or three years, it should appear that the profits of the bank had become permanently

diminished, then the course would be to reduce the dividend, until the surplus fund had recovered its former amount.

Banks that have made large profits, have either increased the dividend, or distributed them among the shareholders in the form of bonuses, or have added them to the capital. The Bank of England have adopted all these plans. Yet, after all these distributions of increased dividends, bonuses, and additional capital, the bank had on the 7th of September, 1844, a rest, arising from surplus profits, of 3,564,729*l.* No other "banking concern carrying on business with Bank of England notes," would think it necessary to keep such a rest. Neither the kind nor the extent of business carried on is ever likely to require anything like this amount to meet any occasional losses. The amount is altogether excessively disproportionate to the purposes for which a surplus fund is usually applied, and at the same time it tends to give an erroneous view of the profits of the bank. This rest is employed in the business, and yields profits, but it pays no dividends. The profits go to swell the dividend on the capital, and hence the capital appears to yield a profit of 7 per cent. But the dividend of 7 per cent. is not made upon the capital alone, but on the capital and rest together, and hence upon the funds employed it amounts to only about $5\frac{3}{4}$ per cent.

10. Banking as an Art includes on the part of the banker the cultivation of those dispositions and habits which are conducive to his success.

But though wisdom—or, in other words, a high degree of common sense—does not imply the possession of any remarkable talent (the undue development of any one faculty), it always implies the absence of any remarkable defect. One great defect in a banker is a want of decision. A banker ought to know how to balance the evidence on each side of a question, and to arrive speedily at a just conclusion. Another defect is a want of firmness. A banker having, after a mature consideration, made up his mind, should be capable of a strict adherence to his previous determination: he should know when to say *No*; and having once said No, he should adhere to it. Another defect is that of being swayed by any personal or constitutional prepossession. Almost every man—not excepting even the banker—has a sin by which he is most easily beset; a constitutional defect, against which it is necessary he should be upon his guard.

A banker should have a talent for selecting suitable instruments. He ought not only to know himself, he ought also to have a capacity for knowing others. He should know how to choose proper clerks for the discharge of the duties of the office. He should know also what parties to employ to procure him confidential information as to the character and circumstances of commercial houses, or of individuals.

He should know how to choose his partners or coadjutors; and should endeavour to select those who possess qualifications in which he is himself deficient. In all cases, when he has any object to effect, he should know how to make use of other men.

A banker should know how to economise his own time. One mode of doing this will be to assign inferior duties to others. Another mode is, to make his interviews with his customers, or with other parties, as short as he can. He should not encourage conversation upon any other topic than that which is the occasion of the interview. He had better receive his customers standing; as in that case they will stand too, and are not likely to remain so long as if they were to sit down. And the furniture of the room should be so arranged that the customer, if he sit down, should sit near the door, so that he may depart whenever disposed. He is not likely to remain so long as if seated comfortably by the fireside. It is also desirable that his room should be so placed with reference to the other parts of the building, that while it has one door open to the public, it should have another door opening into the office; so that he may easily pass into the office, to ascertain the state of a customer's account, or to consult with himself or another person, in doubtful cases, as to the course to be adopted. It is not advisable that the customer who applies, for instance, to have a heavy bill discounted, should witness the hesitation or the deliberation of the banker. Hence it is better, when it can be done, to establish the practice of the customer giving the bills to a clerk, who shall bring them into the banker's room, and take back his reply.

Wisdom implies prudence and discretion, and these should regulate the whole conduct of a banker, not merely when engaged in banking transactions, but at all other times. We may apply to a banker the language we have elsewhere applied to a merchant:—"The amusements of a merchant should correspond with his character. He should never engage in those recreations which partake of the nature of gambling, and but seldom in those of a frivolous description. A judge is not always on the bench, a clergyman is not always in the pulpit, nor is a merchant always on 'Change; but each is expected at all times to abstain from any amusements which are not consistent with his professional character. The credit of a merchant depends not merely on his wealth, but also upon the opinion generally entertained of his personal qualities; and he should cultivate a reputation for prudence and propriety of conduct, as part of his stock in trade."

SECTION II.

OF BANKING AS A SCIENCE.

The science of Banking forms a portion of the science of wealth—a science which is usually called political economy. It is the object of the science of Banking to teach some of the means by which nations acquire wealth. Such of its doctrines or principles as reason and experience show to be well founded constitute the science. Political economy is usually divided into production, distribution, interchange, and consumption. Banking may perhaps be properly placed under the head of interchange, though many of its operations have an intimate connexion with production and distribution. In the exposition of the Science of Banking I shall follow the same course which in the preceding Section I have followed with reference to the Art. I shall specify those branches of inquiry which, as I conceive, are included in the science, and illustrate them by extracts from my own writings.

I. Banking as a Science includes a view of those conditions in society which are antecedent to the establishment of banking institutions.

The state of banking in any country furnishes a criterion of the state of society which there exists. The following are the principal circumstances denoted by the formation of banks.

1. The establishment of a bank indicates the security of private property. Not only must the right of private property be recognized and established, but a form of government must be framed which is sufficiently strong and just to secure to each individual the possession of his right. If the government be too feeble to protect one individual of the community against the rapacity of another; or be despotic and tyrannical, so as not to circumscribe its own claims within the limits of law and justice, few banks will be established. The former appears to have been the case with Europe under the feudal system, and is now the case with all countries which are not far advanced in civilization. The latter is the case with the despotic governments of eastern countries. Here the possession of property is attended with danger. A rich man may be sacrificed by the government and his wealth confiscated. In such a state, men who have property will, if possible, conceal it. To

place it in the hands of a banker would be to invite the government to take possession of it. Besides, who, in such a state would carry on the business of a banker? who would undertake the custody of other people's property, if by that means he endangered his head? Little would the government care whether the property in the banker's hands belonged to himself or to others. It would be quite sufficient to know in what place the treasure was to be found. Pretexts could easily be supplied, sufficient in the ruler's own judgment to justify his beheading the culprit, and seizing on all the wealth in his possession. Hence we find few banks in such countries.

Nor do we find that banking flourished in this or any other country during the existence of the feudal system. Private property was not then sufficiently secure. The rapacity of the barons, and the wars they often carried on against each other, would soon have dispersed the wealth that might have been accumulated. Persons who had money, buried it in the earth. During the middle ages, the chief bank was that of Venice. In that state the feudal system did not exist. Venice was an aristocratical republic. The nobles possessed all the power in the State; but then they possessed that power in their collective, and not in their individual capacity. No individual nobleman had a right to oppress a citizen. He had no serfs or slaves to labour on his estate. He was amenable to the laws which were established by the Senate; and these laws restrained as effectually the ambition of individual nobles as of private citizens. However inferior the government of Venice may have been to those of modern times, it was certainly far superior to any of the governments by which it was surrounded. Venice was a commercial state, and a state cannot long remain commercial unless the right of private property be well secured. Commerce and liberty gave rise to banking.

2. The establishment of a bank indicates some degree of internal trade. Banks are established to grant facilities to trade; and if there be no trade there will be no banks. It is not the banks that give rise to the trade, it is the trade that gives rise to the banks; though, after trade is established, the institution of a bank extends the trade. One branch of the banking business is to transmit money to distant places; but for this there can be no occasion, if there be no trade between distant places. Banks grant pecuniary accommodation to the manufacturer. But manufactures must be too limited to need supplies from a bank if all the articles manufactured are consumed in the immediate neighbourhood. Such manufacturers can never be sufficiently wealthy to want a place of deposit for their superfluous capital, nor can their business be sufficiently extensive to warrant the establishment of a bank for their accommodation.

The want of a free commercial intercourse between the different parts of the country was a great obstacle to trade, and consequently to

the establishment of banks, under the feudal system. Each baron was to a certain degree an absolute monarch on his own estate. He imposed what taxes he pleased on all goods removed from his territory, or which were even conveyed through his lands. The purchase and sale of goods were regulated at his pleasure; and as each baron possessed the same power, all commercial intercourse between their respective estates was in a manner interdicted.

3. The establishment of a bank indicates that the practice has been introduced of dealing upon credit. A banker is a dealer in capital. He is the intermediate party between the borrower and the lender. He borrows of those who have money to lend, and he lends to those who want to borrow. But this cannot be done without credit.—On both sides there must be trust. The parties who lend must trust the banker, and he must trust those who borrow of him. But this will not be done until commerce is so far advanced that transactions of considerable importance are performed upon credit. In the infancy of commerce all trade is carried on with ready money. Before good roads are formed and posts are established, trade between distant places is carried on by merchants in a body, who associate together in considerable numbers, and meet at fixed times at particular places, whence they commence their journey to the country with which they intend to traffic.—When arrived at the place where the market is held, they dispose of their goods for ready money. They then lay out their money in the purchase of other goods, with which they return. Such was the practice with the merchants of the East, who formed the immense caravans that formerly traded between Europe and India; and such is the practice of similar caravans that now trade between Egypt and Mecca. In these cases all the transactions are carried on by ready money. The bankers (if such they may be called) are mere money-changers. They exchange the money of the country in which they live for the moneys of other countries. Such was probably the business of the money-changers who were expelled from the temple of Jerusalem: such too was the business of many persons in European countries in former times.

4. The establishment of a bank indicates that capital has considerably accumulated. Is a bank intended for a place of security? Who, before the accumulation of capital, has wealth he is anxious to secure? Is a bank intended as a place of deposit, where those who have money may lend it upon interest? But who, before the accumulation of capital, has money to lend? Is a bank intended for a place where those who want to borrow money may go and obtain it? But where, before the accumulation of capital, can the bankers procure the treasure to advance? It is obvious that banking must be a poor business in a poor country—it is not until commerce, and wealth, and luxury have extended widely, that banking becomes a profitable occupation.

5. The establishment of a bank indicates that it is not deemed unjust to take interest for the loan of money. Nothing can be more consistent with the principles of natural equity than that he who borrows money with a view of making a profit by it, should give to the lender some portion of the profit which he makes. No doctrine could be more destructive to banking than that the taking of money for the loan of money was sinful; and as long as this practice was stigmatized with the name of usury little banking could exist. But as commerce increased this doctrine became obsolete. It was soon discovered that this sentiment was unjust and injurious, and that however well it might have been adapted to an Eastern agricultural nation, it was altogether inapplicable to the state of modern commerce.

The above observations appear to be equally applicable to all banks, whether public or private. Without the security of property—without trade, credit, capital, and interest—few banks can be established. And whenever a new bank is established in consequence of the additional wants of the neighbourhood, it shows that the trade, capital, and wealth of that place are on the increase, and the establishment of a bank will probably increase them to a still greater extent.

II. Banking as a Science includes the effects produced on society by the various operations of banking.

1. Banks of Deposit.—A bank that receives lodgments of money is called a bank of deposit. A bank that issues notes is called a bank of circulation. Each bank attempts to procure a banking capital, but by different means. When a bank of deposit is opened, all the people in the district, who have money lying idle in their hands, will place the money in the bank. This will be done by the merchants and tradesmen, who are in the habit of keeping by them a sufficient sum of money to answer daily demands; by the gentry and others out of business, who receive their rents, dividends, or other moneys, periodically, and disburse them as they have occasion. The various small sums of money which were lying unproductive in the hands of numerous individuals, will thus be collected into one sum in the hands of the banker. The banker will retain a part of this sum in his till, to answer the cheques the depositors may draw upon him; and with the other part he will discount bills, or otherwise employ it in his business. But if, instead of a bank of deposit, a bank of circulation *only* be established, then the several small sums of money will remain unproductive, as before, in the hands of various individuals; and the banker, in discounting bills, will issue his own promissory notes.

Now, it is obvious that these two kinds of banking are adapted to produce precisely the same effects. In each case a banking capital is created, and each capital is employed in precisely the same way; namely, in the discounting of bills. To the parties who have their bills

discounted, it matters not from what source the capital is raised—the advantage is the same to them—the mode in which they employ the money is the same—and the effects upon trade and commerce will be the same.

Banks of deposit serve to economise the use of the circulating medium. This is done upon the principle of transfer. The principle of transfer was one of the first which was brought into operation in modern banking. The bank of Amsterdam was founded upon this principle. Any person who chose might lodge money in the bank, and might then transfer it from his own name to that of another person. All foreign bills of exchange were required by law to be paid by such transfers. Although the money might at any time be drawn out, either by the original depositor or by the party into whose name it had been transferred, yet, in fact, this was seldom done, because the bank money was more valuable than the money in common use, and consequently bore a premium in the market. The transfer of lodgments is extensively practised in our own times. If two persons, who have an account in the same bank, have business transactions with each other, the debtor will pay the creditor by a cheque upon the bank. The creditor will have this cheque placed to his credit. The amount of money in the bank remains the same; but a certain portion is transferred into a different name in the banker's books. The cheque given by the debtor is an authority from the debtor to the banker to make this transfer.

Here the payment between the creditor and the debtor is made without any employment of money. No money passes from one to the other: no money is paid out or received by the banker. Thus it is that banks of deposit economise the use of the circulating medium, and enable a large amount of transactions to be settled with a small amount of money. The money thus liberated is employed by the banker in making advances, by discount or otherwise, to his customers. Hence the principle of transfer gives additional efficiency to the deposit system, and increases the productive capital of the country. It matters not whether the two parties who have dealings with each other keep their accounts with the same banker or with different bankers; for, as the bankers exchange their cheques with each other at the clearing-house, the effect, as regards the public, is the same. The deposit system might thus, by means of transfers, be carried to such an extent as wholly to supersede the use of a metallic currency. Were every man to keep a deposit account at a bank, and make all his payments by cheques, money might be superseded, and cheques become the sole circulating medium. In this case, however, it must be supposed that the banker has the money in his hands, or the cheques would have no value.

2.—Banks of Circulation.—A bank that issues notes is called a

bank of circulation. The amount of notes that any bank has in circulation is usually called by bankers "*the circulation.*" Banks of circulation, both in England and Scotland, have all of them had to sustain heavy accusations. I shall notice some of these charges, not with a view of rebutting them in regard to any individual bank, but in order to discuss the general principles by which we should be guided, in judging of the effects produced by banks of circulation.

The most common charge against banks of circulation is, that they have issued an excessive amount of their notes: and thus have encouraged speculation, raised the price of commodities, and led to commercial convulsions similar to that of December 1825.

Another charge that has often been preferred against banks of circulation is, that by an increased issue of their notes they have caused a general rise in prices.

In investigating this charge, it will be proper to inquire what are the cases in which an increased issue of notes may produce a rise in prices.

It cannot be denied that if any bank have the privilege of issuing notes, not convertible into gold—that is, not payable in gold on demand —the notes may be issued to such an amount as to cause a considerable advance in prices. It is now generally believed that the issues of the Bank of England during the operation of the Restriction Act, did produce this effect. It may also be admitted that in a country where there is one chief bank, possessing an immense capital and unbounded confidence, the notes of such a bank, even if payable in gold, may be issued to such an extent as to cause an advance of prices, until an unfavourable course of the exchange shall cause payment of the notes to be demanded in gold. For gold will not be demanded until the course of the exchange is so unfavourable as to cause the exportation of gold to be attended with profit. Hence the issues of the Bank of England, being at present under no other restraint than liability to pay in gold on demand, may for a time cause an advance in prices.

In cases where the increased issue of notes is caused by the increased quantity of commodities brought to market, the additional amount of notes put into circulation does not cause any advance of prices. In all agricultural districts there is a great demand for notes, about the season of harvest, to pay for the produce then brought to market. In the south of Ireland the amount of notes in circulation is much greater in the winter, when corn and bacon are being exported, than in the summer months. Almost every trade and every kind of manufacture is carried on with more activity at some periods of the year than at others; and during the active seasons, when money is in demand, more notes are in circulation. These notes are at such periods drawn out of the banks, either as repayments of money lodged, or by discount of the bills drawn against the exported commodities.

An increased issue of notes often causes the production of an additional quantity of commodities, and in this case does not produce an advance of prices. The issue of notes will be either in the form of discounts, or loans, or the repayment of deposits. In either case, the parties receiving the money will spend it, and a demand will thus be occasioned for a certain class of commodities. If this demand should not exceed the quantity that can be readily supplied, there will be no advance of price. The parties who receive the money from the banker may give it to the dealer in exchange for the articles they purchase. The dealer wishes to replace the goods he has sold, and passes the money for more goods to the manufacturer. The manufacturer consequently buys more raw material and employs more labourers. An increased quantity of goods is thus produced, and exchanged against the increased quantity of money. But while the supply can keep pace with the demand, the price will remain the same; it is only when the demand exceeds the supply, and the commodities are consequently comparatively scarce, that the price will advance.

In cases where an increased issue of notes does cause an advance of price, the advance can be but temporary; and this advance may generally be ascribed to a spirit of speculation on the part of the dealers, and not to an excessive issue on the part of the banks. As the prices of all commodities are regulated by the proportion that may exist between the demand and the supply, whenever an increased issue of notes raises prices, it must be either by increasing the demand for commodities, or diminishing the supply. The cases in which an increased issue of notes may cause an advance of prices are chiefly those in which the money is employed in purchasing such commodities as cannot be readily produced by human labour. Thus, if a banker lend money to a corn merchant to purchase a stock of corn, he increases the demand for corn. If he lend money to a farmer to enable him to pay his rent without selling his corn, he diminishes the supply. In both cases he may cause an advance in price. But even in this case, the most unpopular that can well be imagined, the effect on price will be but temporary: for these speculations do not diminish the quantity of corn in the country. The supplies now withheld must ultimately be sold, and in proportion as they advance the price when withheld, will they lower the price when brought to market. A degree of speculation in some commodity or other is always on foot, and occasions fluctuations in the price. The banks have no control over these speculations, and ought not to be deemed answerable for the changes they occasion. To suppose that the banks can so regulate their issues as to maintain permanent prices, is to ascribe to them a power which they do not possess, and which, if they did possess, they ought never to use.

There are various cases wherein an increased issue of notes causes a reduction of prices. The speculations which advance prices are chiefly

those carried on by *dealers.* The speculations of *producers* who invest their capital in new undertakings, with the view of producing any iven commodities at a less cost, will, if successful, reduce the price to the consumer, and so far as such speculations are assisted by the banks, the issue of notes thus occasioned tends to the reduction of prices. An advance of money which enables a farmer to bestow a higher degree of cultivation on his land—or which enables a manufacturer to extend his business—has the effect of increasing the quantity of commodities offered for sale, and, consequently, to reduce the price. The banks, too, by advancing capital on lower terms than it could be otherwise obtained, diminish the cost of production, and consequently the price. The banks still further reduce prices by destroying monopoly. In towns where there are no banks, a few moneyed men have all the trade in their own hands; but when a bank is established, other persons of character are enabled to borrow capital of the bankers. Thus monopoly is destroyed, competition is produced, and prices fall. Hence it is obvious, that *in the ordinary course of business* the issues of the banks tend not to advance, but to lower prices.

3. Banks of Remittance.—Banks of remittance encourage the trade of a district in two ways: First, by diminishing the prices of commodities. The facility of conveying money has the same effect upon trade as a facility of conveying commodities. The opening of good roads diminishes the expense of the conveyance of goods. This cheapness in the conveyance causes the commodities to be sold at a lower price. As the imports into the town are sold at a cheaper rate, and the exports are also sold at a lower price at the place of consumption, the increased cheapness in both cases increases the demand, and hence trade is advanced. The cheapness of conveying money operates in the same way as cheapness in the conveyance of goods. After the goods are sold, the money must be transmitted. The expense of remitting the money, like the expense of conveying the goods, must be regarded as an item in the cost of production, and be taken into account in fixing the price at which the goods must be sold. Banks remit money at a less expense than it can be remitted in any other way. Hence the merchants are enabled to sell their merchandise at a lower price, and thereby consumption is increased and trade is extended.

The second way in which banks of remittance promote trade is by enabling capital to revolve more rapidly. They cause money to be remitted in a shorter space of time. For instance, an Irish butter merchant may purchase of a farmer a quantity of butter, and ship it for London. He may, on the same day, draw a bill for the value of the butter, and have it discounted at the bank. With this money he may purchase a further quantity of butter, against which he may draw another bill, and have it discounted. This operation, if he be in good

credit, may be repeated as often as he pleases. Now, if there be no bank in the district, he could not get the money for the first shipment of butter until the return of post from London, and then he would receive large Bank of England notes, which he might not easily be able to get changed. During this interval he can make no purchases for want of money, and the farmer has no sale for his butter: thus the banks enable the merchants' capital to revolve several times more rapidly than it could otherwise do. To increase the rapidity of the returns of capital has the same effect as to increase its amount. If any given amount of capital, that now revolves once in a year, be made to revolve twice in a year, it will have the same effect upon trade as if the amount of capital were doubled, and its progress remained the same.

Banks of *deposit* encourage the trade and wealth of a district, by collecting together the various small amounts of money that previously lay idle in the hands of the depositors, and employing this sum in advances, by way of loan or discount, to the productive classes of the community. The commodities thus produced are remitted to a distant place for sale. But in the interval between the transmission of the goods and the return of the money for which they may be sold, the manufacturer is deprived of the use of this amount of capital. Banks of *remittance* guard against this inconvenience, and advance immediately to the manufacturer the value of the goods, by discounting his bill upon the party to whom they are consigned. By this means he has all the advantage to be gained from the higher prices of a distant sale, in connexion with that prompt payment he would obtain from a home market. Thus it is, that while banks of deposit enable the capital of any district to revolve more rapidly *within the district*, banks of remittance enable it to revolve more rapidly with reference to other places. Both produce the same effect as that positive increase of capital which is introduced by banks of circulation.

4. Banks of Discount.—A considerable branch of the business of modern banking consists in discounting bills of exchange. As they have only a short time to run before they fall due, the capital advanced soon returns; and being transferable, they can, if necessary, be rediscounted. Hence they are admirably adapted for the purposes of the bankers: for, as the advances of bankers to their customers are made with other people's money, and that money may at any time be withdrawn, it becomes necessary that the securities on which those advances are made should rapidly revolve and be at all times convertible. By means of bills of exchange bankers can easily extend or diminish their advances in proportion to the capital they may have to employ. If they find that the amount of their deposits or the amount of their circulation is diminishing, they will diminish their discounts. If these increase, they may increase their discounts.

The discounting of bills by banks of circulation will have the same effect in changing the currency as the deposit accounts, but will not operate so rapidly. When a bill is discounted, the banker issues his own notes to that amount; and when the bill is paid, he receives a part of the amount in gold, silver, or in notes of other banks. If, however, the bill be not a local bill, that is, if it be not payable in the place in which the bank is established, it will be paid in the currency of the place where it is made payable, and its payment will not have the effect of diminishing the local currency.

While the issue of notes upon the deposit accounts depends altogether upon the depositors, the issues in the way of discount depend altogether upon the banker; he may discount or not discount, as he pleases. If he discounts with real capital, he does not thereby increase the amount of the currency; for that capital must, in some way or other, have been previously employed. If he discounts with that portion of his banking capital which is raised by deposits, he does not increase the amount of the currency, but gives it increased rapidity. If he discounts with that portion of his banking capital which is raised by notes, he increases the amount of the currency. As banks of circulation always issue their own notes, it would seem that their discounting business was carried on exclusively with this last description of capital, but it is not so. It is very possible for a banker to issue his own notes for all the bills he discounts, and yet nine-tenths of the bills in his possession shall represent real capital: for although in the first instance the banker's notes are given for the bill, yet these notes may not stay in circulation until the bill becomes due; the bill may have three months to run, the notes may return in three days. If the notes given in exchange for the bills remain in circulation until the bills become due, then do the discounts create a banking capital equal to their own amount: but if the bills have three months to run, and the notes remain out only one month, then they create a capital to only one-third of their amount, and the other two-thirds must consist of capital derived from other sources. If the notes remain out beyond the time the bills fall due, then do the discounts create a banking capital beyond their own amount.

It may be observed, that in order to trace the effects of banking it is necessary to mark particularly the way in which bankers employ their money. It is not the creation of a banking capital, but the way in which that capital is applied, that the greatest effects are produced upon the currency, and upon the trade and commerce of a country. Money employed in discounting bills drawn for value will encourage trade—if employed in discounting accommodation bills, it will promote speculation—if advanced as dead loans to persons out of trade, it may lead to extravagance—if invested in the funds, it will raise their price and reduce the market rate of interest—if kept in the till, it will yield no profit to the banker, and be of no advantage to the community.

5. Loan Banks.—Loan banks are banks formed for the purpose of advancing loans upon articles of merchandise. Some are carried on for the purposes of gain, others from motives of charity.

The Bank of England was empowered by its charter to carry on the business of a loan bank. The following is the twenty-sixth section of the Act: "Provided that nothing herein contained shall in any wise be construed to hinder the said corporation from dealing in bills of exchange, or in buying or selling bullion, gold or silver, or in selling any goods, wares, or merchandise whatever, which shall really and *bonâ fide be left or deposited with the said corporation for money lent or advanced thereon,* and which shall not be redeemed at the time agreed on, or within three months after, or from selling such goods as shall or may be the produce of lands purchased by said corporation." In pursuance of the privilege granted by this clause, the directors gave public notice that they would lend money at four per cent., on "plate, lead, tin, copper, steel, and iron."

The Bank of Scotland was also authorized to act as a loan bank. The following is one clause of the Act by which it was established in 1795: —"And it is further hereby statute and ordained, that it shall be lawful for the said governor and company to lend, upon real or personal security, any sum or sums, and to receive annual rent for the same at six per cent., as shall be ordinary for the time: as also, that if the person borrowing, as said is, shall not make payment at the term agreed upon with the company, that it shall be lawful for the governor and company to *sell and dispose of the security or pledge by a public roup,* for the most that can be got, for payment to them of the principal, annual rents, and reasonable charges, and returning the overplus to the person who gave the said security or pledge."

The Royal Bank of Scotland were also empowered by their charter, "to lend to any person or persons, bodies politic or corporate, such sum and sums of money as they should think fit, at any interest not exceeding lawful interest, on real or personal security, *and particularly on pledges of any kind whatever, of any goods, wares, merchandises, or other effects whatsoever,* in such way and manner as to the said company should seem proper and convenient."

"The Hibernian Joint-stock Loan Company," usually called the Hibernian Bank, was formed in Dublin in 1824:—"For the purpose of purchasing and selling annuities, and all public and other securities, real and personal, in Ireland, and to advance money and make loans thereof, on the security of such real and personal security, at legal interest, and on the security of merchandise and manufactured goods." This company, however, has never carried on the business of a loan bank, but has confined its transactions to the business of a commercial bank. It has not the power of issuing notes, but it is a bank of discount and of deposit.

In the same year a society was formed in London called "The Equitable Loan Bank;" but, failing to obtain an Act of Parliament, they never came into operation. Thus a company that might have been useful to the public was crushed at its commencement through the pernicious absurdities in our law of partnership.

Capital advanced, by way of loan, on the security of merchandise, would produce the same effects as if advanced in the discounting of bills. If a party borrows 100*l.* on the security of his merchandise, it is the same as though he had sold his merchandise for a 100*l.* bill, and got it discounted with the banker. By obtaining this advance he is enabled to hold over this merchandise for a better market, and avoids a sacrifice which otherwise he might be induced to make, in order to raise the money for urgent purposes.

Every advance of money by a banker, let it be made in what way soever, is in fact a loan. To discount a 100*l.* bill that has three months to run, is much the same as to lend that amount for three months. The difference is, that the banker has two or more securities instead of one; the time of repayment is fixed, and the interest on the whole sum is paid at the time it is advanced. But let one trader draw bills upon his customers, and take them to the bank for discount; let another trader give his customers three months' credit without drawing bills, and borrow of the banker the amount of the goods sold; it is obvious that in each case the traders receive the same accommodation, and the effect on commerce will be the same. The bill is merely a transfer of the debt from the drawer to the banker, with the drawer's guarantee. Cash credits are loans; the amount of the loan varies every day, but the maximum is fixed. If a trader who has a cash credit for 500*l.* has always 300*l.* drawn out, it is nearly the same thing as though he had a loan for 300*l.*: the advantage to him is, that he can draw exactly such a sum as he may need—that he can replace it whenever he pleases, and in such portions as he may find convenient; and he pays interest only for the sum drawn out. It is unnecessary to say that overdrawn accounts, mortgages, and all advances of money on pledges or securities of any kind, are loans.

6. Savings' Banks.—Savings' banks are banks formed to promote saving.—They are purely banks of deposit; they differ, however, from other banks of deposit, in the following particulars:—First, Very small sums are received as deposits.—Secondly, All the money deposited is lent, upon interest, to the government.—Thirdly, The depositors are restricted as to the amount of their lodgments; these restrictions are designed to exclude from the bank all except the humbler classes of the community.

Loan banks, or institutions for lending money to the poor, are of ancient date; but savings' banks, or institutions for borrowing of the poor are entirely of modern invention. They were first urged upon the

attention of the public and the legislature of this country, in the years 1815 and 1816, by the late Right Hon. George Rose.

In every point of view the savings' banks appear calculated to produce unmingled good. They extend to persons of small means all the benefits of banking. The industrious have thus a place where their small savings may be lodged with perfect security from loss, and with the certainty of increase. They tend to foster that disposition to accumulate which is usually associated with temperance and prudence in all the transactions of life. Upon the mercantile interests of society they have the same effect as commercial banking. The various small sums which were previously lying unproductive in the hands of many individuals, are collected into one sum, and lodged in the public funds. The tendency of this, in the first place, is to raise the price of the funds. This advanced price may cause some of the holders to sell out and to employ their money in trade and commerce. Thus the savings' banks augment the productive capital of the nation.

It is much to be regretted that the advocates for savings' banks should ever have proposed these institutions as substitutes for benefit societies. Cannot the interest of one excellent institution be promoted but at the expense of another? Savings' banks are a useful addition to benefit societies, but cannot supply their place. A labourer pays to a benefit club about thirty shillings per annum, and for that payment he receives about eight shillings per week during the time of illness. If this sum be lodged in a savings' bank, how soon will a few weeks' illness exhaust the whole! It is no doubt the revelling and excess that have too often attended the meeting of benefit societies at public-houses, that have given rise to objections against them. It may be expected, however, that as our labourers and mechanics become better instructed, these excesses will be avoided.

But while savings' banks do not supersede benefit societies, neither do benefit societies supersede the necessity for savings' banks. The benefit society is of use only in case of illness—in no other case has a member any claim upon its funds. He cannot draw out money to support his wife, to furnish his house, or to educate his children. The benefit societies are only to guard against calamity, not to increase enjoyment. By these labourers may be saved from the parish workhouse, but they must also become depositors in a savings' bank if they wish to acquire independence.

III. Banking as a Science, includes the principles on which Banking Institutions should be formed:—

1. The Number of the Partners.—In the year 1708, a clause was inserted in the charter of the Bank of England, prohibiting the establishment of any other bank having more than six partners. This clause prevented the formation of any other joint-stock bank; and, as

the increasing wealth and commerce of the nation occasioned a demand for banks of some sort, a great number of banks, each having no more than six partners, rose into existence, as they were successively required by the wants of the country. The charter of the Bank of England had no reference to Scotland, which at that period was a separate kingdom. Hence, with the increasing wealth of Scotland, joint-stock banking companies were formed; and at present they conduct nearly the whole of the banking business of that country. But, with every renewal of the charter of the Bank of England, this clause was retained, and hence has arisen the difference which subsists between the Scotch and the English systems of banking. In the year 1826, an Act of Parliament was passed to permit the formation of banks having more than six partners, at a greater distance than sixty-five miles from London; with a provision, however, that such banks should not make their notes payable in London, nor draw bills upon London for a less amount than 50*l.* By an Act passed in 1833, these banks have the privilege of drawing bills on their London agents, either on demand or otherwise, and for a less sum than 50*l.*

The advocates of joint-stock banks allege that they possess the following advantages over private banks:—

Joint-stock banks possess greater security than private banks. Security is of the first importance to a bank. One branch of the business to a banker is to take charge of money committed to his care. But who will intrust money to a banker who is not known to be, or at least supposed to be, rich? And if a banker be rich, but afterwards, by mismanagement or misfortune, become poor, and fail, what dreadful misery is inflicted upon those who have money in his hands! How many respectable individuals may be suddenly bereft of their whole dependence! How many industrious tradesmen may become bankrupts! What distrust, what inconvenience, what interruption of business is occasioned, even to those who can bear the loss! But by a joint-stock bank all these evils are avoided. Another branch of the business of a bank is to remit money from one part of the country to another; but who will trust them with money to remit, when they may fail before they have executed their trust? Banks, too, issue their own notes, and thus supply the circulating medium of the country. Here wealth and security are more necessary than ever. In the former cases, the creditors of the banker may have had some opportunity of judging of his safety, and would probably make previous inquiries upon the subject. But when the notes of a banker have become the circulating medium of a neighbourhood, they are readily taken without any inquiries about his solvency. And, indeed, in some cases, if the notes were suspected, they could not be refused. If a tradesman will not deliver goods to his customers for such notes as they offer him, they will take the notes to some other tradesman. Men who receive wages must receive them in

such notes as the master chooses to pay. Since, then, each banker supplies the circulating medium of a large district, and the notes are thus circulated among all classes, some of whom have not the option of refusing them, nor the ability to judge of their value, it is of the utmost importance that banks should be established on those principles which will prevent their failure.

That a bank having a great number of partners should be more secure than a bank consisting of only a few partners, seems a very obvious proposition; and it has received abundant confirmation from the numerous failures that have occurred among the bankers in England, and the few failures that have occurred in Scotland. This is a fact that demonstrates the superior security of joint-stock banks. If a bank of this kind has a charter, it must previously possess a large fund, which forms a guarantee for the punctual payment of its notes or deposits. If the bank have no charter, then every individual shareholder is answerable for all the debts of the bank to the whole extent of his property, as fully as though he had incurred those debts himself. In either case the security is greater than can be offered by any one individual, or by any four or five individuals, however respectable they may be.

A joint-stock bank is less liable to runs. A run is a sudden and general demand for the payment of notes or deposits. It is not sufficient that a banker be safe: it is also necessary that he should be believed to be safe. He derives the larger portion of his gains from the confidence which is placed in him by others. Confidence is money. However wealthy or respectable a banker may be, he may not always be believed to be so. The misfortunes of others may cause him to be suspected. But no banker has always in his coffers all the sums necessary to pay all the claims that may be made upon him. If he were to do this, from what quarter would he obtain his profits? What, then, is he to do in case of a run? He must at all events obtain money to meet the demands made upon him; for if he once suspend his payments, all his credit is destroyed, and his business is broken up. Hence he may be compelled to borrow money at a high rate of interest, or to sell stock or estates below their value, and to incur great expense, in order that the money may arrive in time to meet the demand. But the effects of a run are not confined to the banker himself. One run is over, but another may come. He will be anxious to be better provided next time. He will be more cautious. He will call in the money he has lent. He will lend no more. He will discount fewer bills. Those tradesmen and others who have been accustomed to obtain from the banker facilities for carrying on their business can obtain them no longer. Some have depended on these facilities, and will now fail; others will circumscribe their business; labourers will be thrown out of work, and trade will be obstructed and depressed.

Such are the effects of a run when the banker is solvent, and the run

is met with promptitude. But the banker may be good, and yet the run may cause him to stop payment. In this case, though the banker may ultimately pay the whole of his debts, yet this stoppage will produce for a while the same effects as though he were insolvent. But it is possible that he might have been solvent before the run, and have been rendered insolvent by the run. The sacrifices he may have been compelled to make for the purpose of raising the money in time to meet the demand, may have absorbed the whole of his property.

Now, what is it that causes a run? It is merely an apprehension that the banker cannot discharge the whole of his obligations, and hence each creditor tries to be first, that he may secure the full amount of his own claim. But no apprehension of this kind can exist in reference to a joint-stock bank. Everybody knows that all the partners are liable for the debts of the bank to the full extent of their property; and each creditor feeling assured that, even should the bank fail, his property is secure, abstains from engaging in a run whereby he can gain no advantage.

Another advantage which joint-stock banks are alleged to possess, consists in the prudence of their management. A joint-stock bank is managed by a board of directors, men of character and ability, who are chosen to fill the office from their superior knowledge of mercantile and banking business. The united knowledge and wisdom of a number of individuals must be greater than that of two or three individuals. They are not so liable to be imposed upon by false representations, to be deluded by false reasonings, or to be biased by personal attachments. As among many persons there is sure to be a difference of opinion on almost every question brought before them, it is certain that no measure will be adopted without having first received a full discussion.

On the other hand, the management of a private bank is too frequently intrusted to one or two of the partners—men who cannot be expected to act with the caution and prudence of an elected body, answerable for their conduct to the great body of proprietors—men, too, who have their prejudices to indulge, their friends to please, and their partialities to gratify. Not so with the directors of a joint-stock bank, where the follies of an individual would be checked, and his deficiencies supplied by his colleagues. It often happens, too, that the partners of a private bank are engaged in some branch of manufactures or commerce; and in this case the bank will be made subordinate to the trading concern. The banking merchant or manufacturer will extend his business, or engage in speculation, under the consciousness of being able to make good his purchases. The trading concern will have an account at the bank, and will always be overdrawn. The money which ought to be employed by the bank in discounting bills for their customers will be absorbed by the trade of the partners. If the trading concern fails, the bank too must fail; the one involves the ruin

of the other. Perhaps, indeed, the bank, by supplying money in the first instance for the parties to speculate with, may have been the cause of the ruin. Even when the partners of a private bank are not themselves engaged in any other employment, the bank often becomes connected with some large manufacturing or commercial establishments. Such establishments are useful to the bank, by enabling them to circulate a considerable amount of their notes. Hence the bank is induced to make large advances to them. Afterwards a further advance is necessary. A run upon the bank compels them to call in the money they have advanced. The money cannot suddenly be replaced. Hence all the parties become bankrupts. From all these evils joint-stock banks are alleged to be free.

2. The Liability of the Shareholders.—In America, the banks are chartered banks, and the shareholders, in most cases, have no liability beyond the amount of their respective shares. In England, every shareholder is liable to the full extent of his property for all the debts of the bank.*

Unlimited liability gives greater security to the public. It will hardly be denied that all the property of five hundred partners gives greater security for the debts of the bank than any small portion of that property that may be advanced in the form of paid-up capital. It is not necessary to prove that the paid-up capital, and the remaining property of the partners, form a larger fund than the paid-up capital alone. The unlimited liability of the partners constitutes, therefore, a higher guarantee for the ultimate payment of the debts of the bank, whether those debts arise from notes or deposits.

Unlimited liability is, to a certain extent, a guarantee for prudent management. As the directors are liable to the full extent of their property, they will take care not to incur such risks as will place that property in jeopardy. And the shareholders will take care to choose directors whose wealth and character render them worthy of confidence; and they will also attend to the annual report of the directors, and will be alive to any event that may endanger the prosperity of the bank.

The unlimited liability of the shareholders attracts the public confidence. It is not enough that a bank is ultimately safe—the public should believe that it is safe. A want of confidence in our banking establishments has been the cause of much misery. The panic of 1825 would have been far less calamitous had there existed no suspicion of the banks; but in consequence of the general suspicion, many stopped payment, who were afterwards proved not only to be solvent, but wealthy. It will not be denied, that the public will place greater confidence in a bank where, in addition to the paid-up capital, they

* Acts authorizing limited liability have been since passed.

have a claim upon the property of all the partners, than where they have to depend upon the paid-up capital alone.

But it is said that unlimited liability has been tried and failed. The private banks in England were all founded on unlimited liability, and yet large numbers of them have failed. Is it believed that if these private banks had been founded on limited liability, the failures would have been less numerous? Besides, is it fair to infer that because the unlimited liability of six partners fails to produce a good bank, that therefore the unlimited liability of six hundred partners would be equally ineffectual? And if, in some cases, even this has been found to fail, are there no failures on the other side? Has not limited liability been also tried and failed? Are the one hundred and sixty-five chartered banks that have failed in America to go for nothing? And what are all the returns, the oaths of the directors, the examinations and countings of the money by government commissioners, but so many acknowledgments that limited liability is not to be trusted?

If limited liability is to be tried at all, it should be under heavy restrictions—restrictions more severe than those imposed upon the banks of America. It is, perhaps, possible to frame charters, with such provisions as might justify the limitation of the liability to three or four times the amount of the paid-up capital.

It has often been suggested in this country, that the private bankers should make deposits with government as a security for their notes, but the plan has never been carried into effect. To compel either a private or a joint-stock bank to deposit that which could not be withdrawn in case of emergency, would be to cause a lock-up of capital, liable to all the objections advanced against lending money upon dead security; and even should those funds be available, it would be unjust unless the same amount of money that was invested should be returned. It is no doubt advisable that every bank should invest some portion of its capital in government security. The objection to buying stock is, that the stock is sure to be low when the money is wanted; and were a law to be made requiring banks to invest their funds in a security, that in case of emergency could not be realized without loss, it would be little better than an act of confiscation. It may therefore be worthy of inquiry, how far government might issue to joint-stock and private banks a kind of bank debentures similar to exchequer bills: these debentures to bear interest, say at 4 per cent. receivable every year, and to be granted only to bankers; the banks not to be at liberty to sell their debentures, but to borrow money upon them from the Bank of England, or from other parties, as they should think proper.

3. The Amount of the Capital.—Presuming that banks are to commence with a moderate amount of capital, and to increase that amount as the business increases, the question is suggested, What is the best

way of increasing the capital? The English banks have followed two ways of doing this; one, by a further issue of shares; and the other, by further calls upon the existing shareholders. The capital of all the joint-stock banks in England is divided into certain portions, called shares; each proprietor holds a certain number of these shares, and pays a certain sum upon them. If he wishes to transfer a portion of his capital, he cannot transfer a half share or a quarter share, but must transfer a whole share, or a certain number of shares. Thus, if the capital of a bank be 500,000*l.*, it may be divided into 5,000 shares of 100*l.* each, or 50,000 shares of 10*l.* each, and a certain proportion of the amount of each share will be paid up; and this proportion is called the real or the paid-up capital. Thus, if one-tenth of the above capital is paid up, then 50,000*l.* will be the real or paid-up capital, and 500,000*l.* will be called the nominal capital. In the chartered banks, on the other hand, there is usually no nominal capital, and the real capital is not divided into shares or portions, but any fractional sum may be transferred. The capital is then called stock. When there is no nominal capital, nor any way of increasing the amount of the real capital, this is the best way. But, in the other case, it is more convenient to have the capital divided into shares.

Some persons have objected altogether to a nominal capital; but their objections have been directed more to the misrepresentations that may attend it than to the thing itself. They say, "a bank announces that it has a capital of 500,000*l.*, whereas few shares are issued, and but a small sum is paid on each share; hence people are misled, and the bank acquires a confidence which it does not deserve." The objection here is against representing the nominal capital to be paid-up capital; it does not bear upon the principle of a nominal capital. In fact, we are misled by words. What is called nominal capital is nothing more than a further sum which the directors have the power of calling up. If this sum had not been called capital, it would not be objected to, as it could lead to no misapprehension. But the inquiry simply is, Ought the directors to have the power of calling upon the shareholders for a further amount of capital beyond that already paid up? Were they not to have the power, the bank would at its commencement probably have too large a capital, and after its business had advanced, would have too small a capital. And if the bank by any unforeseen occurrence became involved, and should have occasion for further sums to extricate itself from its difficulties, it could not make any further call upon its shareholders, although a very small advance might prevent its utter ruin. In case of a very large capital, such as two or three millions, a nominal capital may not be necessary, as so large a sum is likely to be in all cases amply sufficient; but in banks of a second class, it will always be best to give the directors the power of making further calls upon the shareholders.

The second way of increasing the capital of a bank is by the issue of

new shares. The whole amount of shares to be issued is fixed in the first instance, and the bank commences as soon as a certain proportion has been issued. If the bank was not allowed to commence business until the whole of the shares were taken, a small amount would be fixed upon, and the bank would be proportionably weaker. But by beginning with a small number of shares, you have capital enough for your business, and you acquire more as you proceed. Many persons will join a bank after it is established who would not take shares at the commencement. Some shares are therefore reserved for persons of this description; and as the shares are more valuable when the success of the undertaking is no longer doubtful, they are often given out at a premium, and always a greater degree of caution is exercised as to the persons to whom they are distributed.

Some members of the Parliamentary Committee of 1836 appear to have an objection to shares of a small amount; they apprehend that these shares are taken by an inferior class of persons; and hence the body of proprietors are less respectable. But it would appear from the returns, that the general effect of small shares is, that each shareholder takes a greater number. Thus, in the banks of 100*l.* shares, each proprietor has taken upon an average twenty-eight shares, on which he has paid the sum of 444*l.* In the banks of 20*l.* shares, each proprietor has taken forty-three shares, and paid 359*l.* In the banks of 10*l.* shares, each proprietor has taken fifty-two shares, and paid 400*l.*; while in the only bank of 5*l.* shares, each proprietor has taken 117 shares, and paid 585*l.* It appears to me that the chief objection to which small shares are liable is, that they do not admit of a large amount of nominal capital. The banks of 5*l.* and 10*l.* shares have usually the whole capital paid up, and hence in case of necessity the directors have no power to call for a further amount. Could the Northern and Central Bank have made a call upon their shareholders of 5*l.* per share, that bank might have been saved from destruction.

According to the new Act above referred to, no bank can now be formed with a less capital than 100,000*l.*; and the shares must not be less than 100*l.*, of which 10 per cent. must be paid up before the signing of the deed of settlement; and all the shares must have been subscribed for, and half the amount paid up, before the bank commences business.

4. The Extension of the Branches.—The system of numerous branches leads to uniformity all over Scotland in the terms on which business is transacted in the banks.

From the small number of banks that existed for many years in Scotland, and from the circumstance that the head offices of most of these banks were fixed at Edinburgh, it was easy for them to form arrangements among themselves for the regulation of their business. Hence

arose a uniformity of practice among all the banks, and throughout the whole of Scotland.

This uniformity of practice does not exist in England. The system of London banking is different from that in the country; and the banking of one district differs from that of another district. It would be difficult to produce any general union in England, even among the joint-stock banks. There is a difference in the character of their localities. Their head offices are too wide apart to admit of frequent personal communication. And it may be feared that among the joint-stock banks of England, there is not enough of that *esprit du corps* which is essential to the existence of a general confederation.

There is, however, considerable competition among the banks of Scotland. This rivalry, however, does not lead to transacting business on lower terms. Indeed, these terms are always very moderate. The difference between the rate of interest allowed and charged is rarely more than one per cent. No commission is charged on current accounts; and it is only recently, we believe, that commission has been charged on the amount (not the operations) of cash credits. Sometimes the banks at Glasgow, where there is a great demand for capital, have been disposed to grant a higher rate of interest than the banks of Edinburgh.

The system of numerous branches enables the banks of Scotland to transfer the surplus capital of the agricultural districts to the manufacturing and commercial districts, without going through the process of re-discounting their bills.

Some Scotch writers have considered it a reproach to the English banks that they re-discount their bills, and have boasted that, with rare exceptions, the practice of re-discount is unknown in Scotland. The accusation is made without due consideration. The system of branches makes a difference in all banking arrangements. A bank in an agricultural district, say at Norwich, has a superabundance of money; a manufacturing town, say Manchester, has a demand for money. The bank at Norwich will send its money to a bill-broker, in London; the bank at Manchester will send its bills to the same broker. A re-discount takes place. But let us suppose that the bill-brokering establishment should become the head office of a large bank, having one branch at Norwich and another at Manchester; then no re-discount will occur. The bills discounted at Manchester will never pass out of the possession of the bank. Nevertheless, the surplus funds at Norwich will be transferred to meet the wants of Manchester as effectually as before. This is an illustration of the branch sytem in Scotland. A bank at Edinburgh will have branches in both the agricultural and the manufacturing districts. Or a bank whose head office is in a manufacturing town, will have branches in the agricultural districts. Thus the surplus funds of Perth, Ayr, and Dumfries, are speedily transferred to be employed at Glasgow, Paisley, and Dundee. Were a bank to be esta-

blished at Glasgow without branches, it would probably have occasion for discount at certain times, as well as the banks at Manchester or Leeds.

The system of numerous branches leads to more regularity and uniformity in the mode of making their exchanges. The Scotch bankers are loud in their praises of the system of exchanges; and justly so. But they are in error when they suppose that nothing like it exists in England. We have shown that the country banks make their exchanges with each other, and pay the difference by a draft on London. These operations have the same effect as the exchanges in Scotland of withdrawing from circulation all the superfluous notes; that is to say, all the notes that come into the hands of the bankers. If it be true that notes remain out longer in circulation in England than in Scotland, it arises not from any difference in the system of exchanges, but from a difference in the habits of the people with regard to "keeping a banker." If a Scotch banker issue 1,000*l.* of notes in the morning, he feels assured that these notes will be paid into some other bank in the course of the day. An English banker is not so sure. The party may not "keep a banker," and he may then lock up the notes in a strong box for a week or ten days, until he have occasion to make a payment. We think it desirable that every man who has money should lodge it in a bank, not merely for interest, but for security: and, therefore, we approve of the Scotch practice. But it is this universal practice of having a banker, and not merely the system of exchanges, that withdraws notes so rapidly from circulation.

At the same time, it should be stated, that the Scotch bankers are of opinion that our system of banking in England is chargeable with some portion of the blame. They say, that as the English banks do not universally allow interest on deposits and current accounts, the people have not the same inducement as in Scotland for placing their money in a bank. And as many banks charge commission on the operations of a current account, it is the interest even of those who keep bankers to pay away the notes they receive to other parties, rather than to lodge them to their credit with their banker.

5. The Form of the Government.—In joint-stock banks, the administrative functions are usually distributed between the directors and the manager.

With reference to both private and joint-stock banks, the distribution of the administrative functions is a most important topic of inquiry. By what parties ought these functions to be exercised?—We have spoken of "the banker," as though a bank consisted of only one person, and this one person administered all the powers and functions of the bank. But few banks consist of only one person. One class of banks consists of two, three, four, five, or six persons, some or all of whom attend to the practical administration of the bank. Another class of banks

consists of a great many, it may be of several hundred persons, who appoint some dozen or score of their own number to administer the bank on their behalf.

But how many soever the number of partners may be in a bank, the administrative functions are in fact practically exercised by a small number of persons. A private bank may consist of six or more partners, but it is rarely, we believe, that so many as six are actually engaged in the business. When more than one are thus employed, their duties may be distributed according to their seniority or other circumstances. In ordinary matters there may be a division of labour, and each partner may preside over a distinct department of the business. But in all important cases, there is usually one leading partner who practically guides the others. When a bank has risen speedily to eminence, it has generally been through the talents of some one man. It does not follow that this one man did not receive great assistance from the advice or suggestions of his partners. It is the part of a wise man to avail himself of the knowledge and wisdom of others; and he will often gather much useful information from men far below himself in general talents. There is, perhaps, more uniformity, consistency, and energy in the proceedings of a bank managed by a few partners than by many. On the other hand, banks have sometimes been ruined by placing too much power in the hands of one or two of the partners.

In a joint-stock bank, though the number of directors may be large, the daily exercise of the administrative power is practically in the hands of a few persons. In some banks this power is vested solely in the manager; sometimes in one or two managing directors; sometimes in a permanent committee of two directors and the manager; and in other cases, in a changeable committee, on which each member of the board takes his rota of service for two or three weeks in succession. In all cases, however, the board of directors lay down the general principles on which the bank is to be administered; reports are made to them at their weekly meeting of the actual condition of the bank in all its departments; and all very important matters are reserved for their special consideration.

Joint-stock banking did not grow up gradually in England as in Scotland. On the introduction of this system into England, the directors were necessarily unacquainted with the practical operations of banking; for all the practice and experience were confined to the private bankers, whom the new system was intended to subvert. In some places there was a prejudice against directors who were in business. Hence officers in the army, barristers, solicitors, medical men, retired tradesmen, and country gentlemen, were considered as the most eligible directors. These boards of directors, all of whom were unacquainted with banking, and some of whom were destitute of business habits, had to encounter difficulties which would have tried the most experienced bankers.

The want of experience in a board of directors did not, however, produce any dangerous consequences when they appointed an efficient manager. He prudently advised and instructed them. They gradually increased their knowledge, adopted his principles, and were guided by his counsels. By their daily intercourse with him, by their own reflections, by the direction given to their thoughts, and by the experience they acquired, they became in a few years as conversant with their duties as the manager himself. We believe this was almost uniformly the case with those joint-stock banks that were formed within five or six years after they were allowed to be established in England. As a proof that such was the case, it may be stated that a great portion of the banks formed during that period have, at the present moment, the same managers they had at their commencement.

But after joint-stock banks were started as matters of speculation, they increased more rapidly than efficient managers could be found. The new banks naturally enough looked to Scotland. But the Scotch banks had the sagacity to raise the salaries of their principal officers, to prevent their emigration to England. In some cases those Scotchmen who were appointed managers of English banks had never held office in a bank before, or else it was an office so inferior, that all they knew about banking was merely the routine of the office. Wherever efficient managers were appointed, whether English or Scotch, the same effects were produced as in the former cases. The inexperienced directors acquired the knowledge and experience necessary to the discharge of their duties, and the banks prospered. But sometimes the case was reversed. The manager was inefficient, and the directors inexperienced, and then the effects were disastrous.

In some cases the manager laboured under an inconvenience from being taken from a lower social position. Not a few of the managers were previously bankers' clerks; and the appointment to the office of bank manager did not, in England (as it does in Scotland and in Ireland), raise him to the same social position as a banker. This was injurious to the bank in several ways. It lessened his influence with his directors. From the days of Solomon to the present time, the degree of deference paid to even good advice has depended upon the social rank of the party who offered it: "Wisdom is better than strength; nevertheless the poor man's wisdom is despised, and his words are not heard." The public, too, had been so long accustomed to private banking, that, seeing the manager paid by a salary, they could not bring their minds to view him as *the* banker, but considered him as holding an office analogous to that of chief clerk in a private bank. It may be feared that in some banks the directors took the same view, and thought that the influence and the salaries of the two offices ought to correspond. These impressions, it is hoped, have now passed away.

In some cases the manager was superseded in his functions by the

appointment of managing directors. The manager was a man of banking knowledge and experience, but he had placed over him a couple of managing directors, who had neither knowledge nor experience. Consequently, his voice was never heard in the board-room, and, with the name of manager, he acted only in the capacity of a chief clerk. The manager was thus deprived of the opportunity of discharging the most important of his functions—that of giving advice to the directors—and was required to confine his attention to the more easy duty of obedience.

In other cases the managing directors and the manager formed a secret committee, who alone were acquainted with the actual condition of the bank. The directors of the Bank of Manchester stated, in their first report, that "two of their body, who are out of business, alone have access to the accounts, and are authorized to advise with the manager, when requisite, on the current transactions of the bank. At the same time, each of the other directors engaged, individually, to refrain entirely from inspecting any of the customers' bills or accounts; thus combining all the secrecy of a private bank with the advantages of a public institution." The Bank of Manchester had at that time the largest paid-up capital of any joint-stock bank in England. Three of its directors were examined before the Bank Charter Committee, in the year 1832. They presented to the Committee a list of twenty-three joint-stock banks then formed, and strongly urged that measures should be adopted to require from them an adequate amount of paid-up capital. It is somewhat remarkable that, out of these twenty-three banks, the only one that has stopped payment is the Bank of Manchester. Another has ceased to exist, but it was by a transfer of its business.

In some cases a bank has been ruined by its manager; in others, by the manager and the managing directors conjointly; in others, by the managing directors without the manager; and in others, by one, two, or three directors, who, though not formally appointed managing directors, have, by their influence with the board, virtually monopolized that office, and discharged its functions. It may be questioned whether any case has occurred in England of a bank being ruined by the acts of its whole board, where all the directors were honest and intelligent men, and each was accustomed to think and judge for himself.

We may observe, that sometimes joint-stock banks have been led into erroneous principles of administration by the proceedings of the proprietors. The constitution of joint-stock banks appears theoretically absurd. The manager—the banker—who is presumed to have some knowledge and experience in banking, is placed under the command of a board of directors, whose knowledge and experience are supposed to be inferior to his own. These directors are again placed under the control and instruction of a body of proprietors, whose knowledge of banking is much less than that of the directors. Practically, however, the system works well. But when an attempt is made to carry out the

theory, the effects are injurious; and some joint-stock banks have fallen into danger through the operations being too much regulated by the proceedings of the proprietors.

6. The Privilege of Charters.—We are not the enemies of bank charters. We believe the first banks that were established in every country were chartered banks. This seems to have been the result of a necessity growing out of circumstances. When society is in its infancy, capital is small, and wealthy men are few: thus it appears to be desirable that the government should offer inducements to those individuals who may be disposed to engage in a new undertaking, by limiting the liability of the shareholders, facilitating their operations, sanctioning their proceedings, and, by means of a charter, giving confidence to the public. Such were clearly the objects of the first charters granted to the banks. Joint-stock banks without charters arose in a more advanced state of society, at a time when wealthy men had become numerous, when the commercial character of the people was matured, and when those institutions were so well understood, that they did not require the assistance of government to secure the support of the public. We readily admit, therefore, the principle of chartering companies to carry on the business of banking; we admit that this principle was rightly acted upon in former times; and we have a strong impression that it might be advantageously extended even in the present day.

But while we cheerfully acquiesce in the propriety of granting a charter to a banking company for the objects we have alluded to, we contend that such charters should never contain clauses which should have the effect of prohibiting the legislature from conferring similar charters upon other companies, or of prohibiting the people from forming similar companies without charters.

The first charter of the Bank of England, granted in 1694, contained no clause of this description. It was not until the renewal of the charter in 1708, that a clause was inserted prohibiting the issue of notes by any partnership consisting of more than six persons; and this was done merely with the view of checking the operations of some fraudulent or speculative mining companies that had then begun to issue notes.

The first charter granted to the Bank of Scotland, in 1695, contained an exclusive clause. It provided, that for the period of twenty-one years, from the 17th July, 1695, it should not be lawful for any other person to set up a distinct company or bank within the kingdom of Scotland. No renewal of this exclusive privilege took place after the expiration of the twenty-one years, and in 1727 a charter was conferred upon a new company, called the Royal Bank of Scotland; and at a subsequent period a charter, conferring banking privileges, was also given

to the British Linen Company. As none of these three charters prohibits the formation of other banking companies, or in any way affects their operations, joint-stock banks without charters have successively been established in Scotland, as they have been required by the increasing wants of the country. The chartered banks and the unchartered banks are on the best terms with each other, and they equally share the public confidence.

So tardy was the progress of Ireland in wealth and civilization, that while England had a chartered bank in 1694, and Scotland in 1695, Ireland had no chartered bank until 1784. As her charter was formed upon that of the Bank of England, it unfortunately contained the prohibitory clause preventing more than six partners from issuing notes in Ireland. We say unfortunately, for we question whether, in the whole mass of Irish legislation, any other enactment can be found which has inflicted more frightful misery on that unhappy country. We believe that the Bank of Ireland was well governed, but it existed only in Dublin, while the prohibitory clause, preventing sound banks from being formed, extended to every part of the Ireland. In England the system of private banking, though weak in itself, was supported by the personal wealth, prudence, and respectability of the private bankers. But in Ireland, where the bankers for the most part had neither wealth, nor prudence, nor respectability, the system appeared in its naked deformity, and produced its natural and inevitable effects. The evils of the exclusive clause at last became apparent even to members of Parliament, and Acts were passed allowing joint-stock banks to be established at a greater distance than fifty miles (Irish) from Dublin. Under this permission, the Provincial Bank of Ireland commenced business in 1825; and about the same time two joint-stock banks were formed at Belfast, the Northern Banking Company, and the Belfast Banking Company. The success that followed the establishment of these companies naturally led to the formation of others; and in 1836, the National Bank, governed by a London board of directors, and the Ulster Banking Company, whose head quarters are in Belfast, started into existence. By the Act of 1845 the exclusive privileges of the Bank of Ireland were rescinded, and its charter now resembles that of the Bank of Scotland.

IV. Banking as a Science includes those laws or institutions in society with which banking is collaterally connected.

1. Laws affecting the Coinage.—In my former lecture I mentioned, that the Egyptians used as money, gold and silver bullion. The Greeks, however, were, at a very early period, acquainted with the art of coining. In every nation, the coining of money has been considered a prerogative of the government, and each nation has adopted some peculiar device to place upon the coin. Kings have usually placed their

heads on one side of the coin, and the national emblem on the other. The coin of most nations is of a circular form, though there are some exceptions.

Were we to form what we should call "a Pence Table" for Grecian money, we should say,

6 oboles make one drachma.
100 drachmas make one mina.
60 minas make one talent.

An obolus was a silver coin, worth about three halfpence of our money. There was also a silver coin, called a semi-obolus or half-obolus, worth three farthings. And there were also silver pieces of two oboles, three oboles, four oboles, and five oboles. Then came the drachm, a silver coin, worth six oboles, or about ninepence of our money; and there were also two-drachm pieces, and four-drachm pieces: all these were of silver. Although the Athenians had mines of copper, they seem to have had a great aversion to a copper coinage. And hence, to express low values, they made their silver coins so small that they are said to have resembled the scales of fishes. Ultimately they were persuaded to the use of copper coins, though the orator who advocated the measure was afterwards nicknamed "the man of brass." The smallest copper coin was the eighth of an obolus—equal to three-fourths of a farthing.

Gold was not abundant in Greece, and gold coins were not numerous. The chief, if not the only one, was the didrachm, or two-drachm piece, called a stater, equal in value to twenty silver drachms, and worth above fifteen shillings of our money.

The Athenian coins had a figure of Minerva on one side, and the figure of an owl, the bird sacred to Minerva, on the other. But the coins of different states, and of different ages, differ very much from each other; and hence some of our learned men have been abundantly puzzled upon matters connected with the coins of Greece.

We may observe, that in a point or two the coinage of Greece resembled that of England. At one time all our coins were of silver; gold was not coined till the year 1344, nor copper till the year 1609; and to denote small values, the silver penny was cut into halves and quarters, called halfpennies and fourthings or farthings. When copper was coined, this practice was prohibited, and the small leaden tokens previously issued by private individuals were suppressed.

The Greeks had no coin for the mina (3*l.* 15*s.*), nor for the talent (225*l.*). These were "moneys of account," in the same way as we reckoned all our money by "pounds sterling," although for centuries we had no coin exactly equal to a pound.

The Phœnicians are said to have been the first inventors of coin, though some writers have attributed this honour to the Lydians. We

have already stated an opinion, that the "money current with the merchants," in the time of Abraham, consisted of bars, or pieces of silver, bearing some stamp or mark denoting the quality and the weight, and that this mark or stamp was placed on them by Phœnician merchants. It was no great transition to cut these bars into smaller pieces, and to place on them a stamp denoting their value, and the country by which they were issued. The issue of such coins would soon fall into the hands of the government, who would fix the value at which they should pass current.

There are both silver and copper coins of Tyre now extant in the British Museum. They bear the head or figure of their god Melkart, or Hercules, the same denoted in Scripture by the name of Baal, and supposed to represent the sun. Some of the Phœnician coins bear the figure of the fish which supplied the celebrated purple. It is said that at Carthage, leather money was issued by the State, and passed current. It would be interesting, and might be instructive, to know under what circumstances this money was issued—by what rules the amount was regulated—and whether, in its properties and effects, it bore any resemblance to the paper money of modern times.

The Romans, like other ancient nations, had at first no coined money, but either exchanged commodities against one another, or used a certain weight of uncoined brass. The various names of money also denoted weights, in the same way as with us, who now use the word "pound" to denote a coin, whereas it first denoted a pound of silver. Indeed, we have borrowed this practice from the Romans; and over the figures that denote the pounds, we do not place the letter P, but the letter L—the first letter in the word *libra*—the Latin word for a pound. The Roman pound was equal to about twelve ounces avoirdupois.

The table of Roman money would stand thus:—

10 *asses* make one *denarius.*
25 *denarii* make one *aureus.*

The *as* was of brass, the *denarius* of silver, and the *aureus* of gold.

All the Roman money was originally of brass; and hence the word *as*, which in Latin denotes brass, is also employed to denote money. Silver was not coined in Rome until the year of the city 484; that is, 269 years before the Christian era,—and gold 62 years later, or 207 years before the Christian era.

Servius Tullius first stamped pieces of brass with the image of cattle, oxen, and swine. The Latin name for these is *pecudes*, hence money was called *pecunia*; from which we derive our word "pecuniary." The *as* was a brass coin that weighed a pound. There were other brass coins, weighing one-half, one-fourth, and one-sixth of a pound.

The practice of depreciating the currency, by issuing coins sustaining the same names as the previous coins, but containing a less quantity of

metal, was adopted by the Romans to a greater extent than in our own country. With us, a pound weight of silver that was formerly coined into twenty shillings, is now coined into sixty-six shillings. In the first Punic War, money became so scarce that the Romans coined *asses* that weighed only two ounces, or the sixth part of a pound, which passed for the same value as those of a pound weight had done: by this means the republic gained five-sixths, and thus discharged its debts. Such an example could not fail to have imitators among succeeding statesmen. In the second Punic War, while Fabius was dictator, the *asses* were made to weigh only one ounce, and subsequently they were reduced to half-an-ounce.

The *denarius* was of silver. The Romans had three silver coins—the *denarius*, the *quinarius*, and the *sestertius*. The first was equal to ten *asses*, that is, to ten pounds of brass; the second, to five *asses*; and the third, to two *asses* and a half.

A pound of silver was coined into a hundred *denarii*; so that, at first, a pound of silver was equal to a thousand pounds of brass, a circumstance which proves that silver was then comparatively scarce. But afterwards the case was altered; for, when the weight of the *as* was diminished, it bore the same proportion to the *denarius* as before, till it was reduced to one ounce, and then a *denarius* passed for sixteen *asses*. The weight of the silver money also varied, and was different under the emperors from what it had been under the republic.

We translate the word *denarius* by the word penny, and over figures denoting pence we put the letter D, being the first letter in the word *denarius*, the Latin for a penny. But the Roman penny was not made of copper, nor of brass, but of silver, and, at the time of the Christian era, was worth about sevenpence-halfpenny of our money. We learn from the New Testament history, that the Roman penny bore the image and superscription of the emperor, and was used in the payment of taxes; that it was the usual wages for a day's labour; and that twopence would provide a night's entertainment at a public inn.

The *aureus* was of gold. It was first struck at Rome in the second Punic War (207 years before the Christian era), and was equal in weight to two-and-a-half *denarii*, and in value to twenty-five *denarii*, or one hundred *sestertia*. The common rate of gold to silver, under the republic, was tenfold. At first, forty *aurei* were made from a pound of gold; but, under the later emperors, they were mixed with alloy, and thus their intrinsic value was diminished.

Among the Romans, money was computed by *sestertium*. A *sestertium* was the name of a sum, not of a coin, and was equal to a thousand of the coins called *sestertius*. A *sestertius* is equal in English money to one penny, three farthings, and three-fourths of a farthing.

The deity who presided over commerce and banking was Mercury, who, by a strange association, was also the god of thieves and of orators,

The Romans, who looked upon merchants with contempt, fancied there was a resemblance between theft and merchandise, and they easily found a figurative connexion between theft and eloquence, and hence thieves, merchants, and orators, were placed under the superintendence of the same deity. On the 17th of May in each year, the merchants held a public festival, and walked in procession to the Temple of Mercury, for the purpose, as the satirists said, of begging pardon of the deity for all the lying and cheating they had found it convenient to practise, in the way of business, during the preceding year.

2. Laws affecting the Interest of Money.—That part of the business of banking which consists in the lending of money lay, during the middle ages, under severe restraints. The taking of interest for the loan of money was deemed sinful, and stigmatized with the name of usury. This opinion appears to be wholly unwarranted, either by the principles of natural equity, or the enactments of the Mosaic law. "The taking of interest from Israelites was forbidden by Moses; not, however, as if he absolutely and in all cases condemned the practice, for he expressly permitted interest to be taken from strangers, but out of favour to the poorer classes of the people. The further we go back towards the origin of nations, the poorer do we commonly find them, and the more strangers to commerce; and where this is the case, people borrow, not with a view to profit, but from poverty, and in order to procure the necessaries of life; and there it must be, no doubt, a great hardship to give back more than has been got. The taking of interest from *strangers* Moses has not only nowhere forbidden, but even expressly authorized. Hence it is clear that he does by no means represent interest as in itself sinful and unjust. Any such prohibition of interest in our age and country would, without doubt, be unjust towards lenders, and destructive to trade of every description. Among all the remnants of ancient laws, it would be difficult to find one which, in the present state of society, it would be more foolish and hurtful to revive and enforce. It could only suit a state so constituted as was that of the Israelites by Moses." The taking of interest for the loan of money was first prohibited in England by Edward the Confessor. This law, however, appears to have become obsolete; for, in a council held at Westminster, in the year 1126, usury was prohibited only to the clergy, who in case they practised it, were to be degraded; and in another council, held twelve years afterwards, it was decreed, "that such of the clergy as were usurers and hunters after sordid gain, and for the public employments of the laity, ought to be degraded." The earliest mention we find in the English history of a certain yearly allowance for the usury or interest of money is in the year 1199, the tenth and last year of Richard I. In this case the rate of interest was 10 per cent. This appears to have been the ordinary or market rate of

interest from that period until the time of Henry VIII.; but there are many instances on record of a much higher rate of interest being taken, especially by the Jews and the Lombards, who, in those times, were the principal money-lenders. The exorbitant interest taken by them is supposed by eminent writers to have been the effect of the prohibition of usury.

In the year 1546, the taking of interest for money was made legal in England, and the rate was fixed at 10 per cent. This Act was repealed in the year 1552, but it was re-enacted in 1571. The legal rate of interest was reduced to 8 per cent. in 1624, and to 6 per cent. in 1651. In the year 1714, it was reduced to 5 per cent., where it now remains. The legal rate of interest is still 6 per cent. in Ireland. After the taking of interest was sanctioned by law, the term USURY, which was previously applied to interest in general, became limited, to denote a rate of interest higher than that which the law allowed.

3. LAWS AFFECTING INSOLVENCY.—By the law of Egypt, the property of a debtor became liable to pay his debts; but his person was free. It was sometimes customary for people to borrow money upon the security of lodging the embalmed body of their fathers. An Egyptian who did not pay this debt, and redeem the body, was declared infamous. The Egyptians sometimes produced the dead bodies of their ancestors, in their private festivals, with this inscription on the head:—"Look at me and be merry; for such as I am, so thou shalt be when thou art dead."

Imprisonment for debt has rarely, if ever, existed in connexion with domestic slavery. An insolvent man is not likely to obtain the means of paying his creditors while confined in a prison. But if slavery exists, he may be sold for a slave, and the produce applied, as far as it may go, in liquidation of his debts. In countries where slavery does not exist, debtors are often imprisoned, either as a means of detention, if they wish to escape with their property, or as a punishment in case their insolvency has been produced by their own misconduct, or with a view of compelling their friends to pay the debt in order to procure their liberation.

The Egyptians had a funeral tribunal, by which the dead were tried before they could be buried. After death, every Egyptian was brought before this tribunal, and, if convicted of having in his life acted unworthily, he was denied a place in the burial-place of his ancestors. This was a great disgrace to his family; and, according to the Egyptian theology, it deprived the spirit of the deceased of an entrance into heaven. One of the things which caused the infliction of this mark of disgrace was that of dying in debt. If, however, the children or friends of the deceased should pay his debts, as they sometimes did, he was allowed to be buried. Such an institution as this must have had a

powerful effect upon the conduct of the people in their commercial transactions with each other. A man who knew that every act of dishonesty, unfair representation, falsehood, or trickery, which he may practise in the course of business, might be remembered and uttered, to the disgrace of his family, over his dead body, would be cautious not to give occasion to such a procedure.

As we have no exact information with regard to the mode of trial, we may, perhaps, be allowed to picture to our imagination the form of the proceedings. Let us suppose it was somewhat like this:—An Egyptian merchant dies; the day arrives for the investigation of his conduct. The hall of judgment is thronged with citizens: the body, followed by a long train of mourning relatives, is brought in, and placed in the midst; the judges take their seats, and the whole assembly is hushed into silence. An officer of the court proclaims,—"If any of you know any just cause or impediment why the body of our deceased fellow-citizen should not be committed to the grave, you are now to declare it." A voice! "I object to the burial; for I often had dealings with the deceased, and I could never depend upon his word." Another voice! "I object to the burial; for the deceased attempted to injure my character, in order to get away my customers." A third voice! "I object to the burial: for he lived at a most extravagant rate, when he knew he was unable to pay his debts." A fourth voice! "I object to the burial; for he made over his property to a friend, and then took the benefit of the insolvent debtors' act." The judges rise, and exclaim: "Enough! Enough! Take him away!—take him away! You may throw the body to be devoured by the beasts of the field, or the fowls of the air; but never let the earth be polluted by receiving into its bosom the worthless remnant of so vile a man."

4. Laws affecting Taxation.—The Americans tax the capital of their banks—the English tax their notes, their bills, their bonds, and their transfers. The latter plan seems preferable, as the banks are taxed in proportion to their business.

The composition of the stamp duty upon notes is a great improvement. The banks pay only upon the amount in circulation. When the notes were actually stamped, the banker paid a duty upon those also in his possession.

Bills drawn upon London, at not more than twenty-one days' date, are included in the composition. This arrangement should be extended to all bills drawn upon London. It is much better than stamping the bills, as the duty would vary, not only with the amount of the bill, but with the time it has to run. It is quite fair that a bill which is drawn two months after date should pay twice the duty which is paid by a bill drawn only one month—and it would do so under the composition; but on the existing plan it pays precisely the same.

Banks also contribute to the state by the stamp duties paid on cash credit bonds, surety bonds, and other legal instruments; they also greatly increase the sums derived from the stamp duties on bills of exchange, and the post-office revenue.

There is also a heavy duty upon the transfer of shares in joint-stock banks. It seems hardly fair that a transfer of shares in a joint-stock bank should pay the same tax as a transfer of a landed estate of equal value. If the tax were lightened, the transfers would be more numerous, and possibly the revenue more productive.

There is scarcely any single description of taxes more hurtful— especially to a commercial country—than taxes upon the transfer of property. Commerce and trade consist in the transfer of commodities; and in proportion to the amount and frequency of these transfers, trade will be found to flourish, and the nation to improve in wealth. The imposition of a tax, therefore, upon such transfers, would have the obvious effect of diminishing their amount, and rendering them less frequent—leading of course to a reduction of trade and of national prosperity. Adam Smith says that one cause of the decline of trade in Spain was the imposition of taxes of this description.

But of this class of taxes, the most injurious is that which is laid upon the transfer of shares in joint-stock banks. The tax on the transfer of real property, that is, on lands and houses, is highly objectionable; but this tax upon commercial property is still more objectionable. A landed estate, for example, is not transferred more than once or twice in a lifetime; shares in banks may be transferred every week, yet upon each transfer these shares must pay the same duty as the law exacts upon the transfer of an estate of equal value. A tax upon bank shares is a tax upon productive capital, and is as indefensible in principle as a tax upon the transfer of bales of cotton or casks of tallow. It has been said, that if there were no tax upon the transfer, people would buy bank shares with a view to sell them again at a profit. Do not people buy cotton, and tallow, and silk, and indigo, and tobacco, and a thousand other things, with the view of selling them again at a profit? Do they ever buy things with a view to sell them at a loss? If it be true, then, that all purchases are made with a view to a profitable sale, why tax the transfer in one case more than in another?

Another objection to this tax is, that it is a tax upon the instruments of improvement. Wealth is a legitimate subject of taxation; but to tax a means of wealth is to strike at the very elements of the national power. For instance, what would be thought of the statesman who should propose to levy a tax on the plough of the farmer, or the shuttle of the weaver; so canal companies, and railway companies, and dock companies, and steam companies, and banking companies, are the implements by which prosperity is produced: and to levy taxes upon

them is very much like the policy of the man who killed the goose that laid the golden eggs.

A further objection is, that this tax is an impost on domestic investments. It has been recommended that the transfer of foreign bonds be subjected to a tax in this country. We do not concur in this suggestion; but we think that, at all events, domestic investments should not be placed in less favourable circumstances than foreign investments. At present, Dutch or American, or even Spanish bonds, can be transferred one hundred times a day in our market, without paying any duty whatever; while the transfer of shares in any of our own public companies are heavily burthened, and hence it is that large capitalists are not to be found extensively engaged in these investments. They naturally prefer those securities that can be realized immediately and without expense. If the transfer of shares in these companies were as exempt from charges as transfers in the government funds, how many millions, now invested in the hazardous bonds of foreign countries, might be drawn back to be employed at home in stimulating the rewards of industry, and quickening the operations of commerce!

V. Banking as a Science includes the utility of banks in carrying on the financial operations of the government.

The Bank of the United States.—The State banks having suspended cash payments, the treasury was compelled to receive the taxes in the local currencies of the various districts. All notes which circulated at par were received, but those which were at a discount were rejected. The banks which did not suspend cash payments very much restricted their issues; and hence there was such a scarcity of money in those States that the taxes could not be collected. To meet this emergency, the government issued treasury notes, somewhat resembling our exchequer bills, which bore interest at 6 per cent.

Another difficulty which the government experienced from the condition of the banks was in the transmission of money from one State to another. The money which was collected at one place was required to be expended at another. But the banks of one State had no connexion with those of the others. Hence the government had great difficulty in paying any sum of money, either for supplies or services, at any particular place where the party to whom the money was due might happen to reside.

Another inconvenience was, that the government was obliged to employ as agents for receiving the taxes a vast number of banks. Had there been one national bank, with a branch in each State, the collectors would have lodged the taxes at the various branches, and the head office would have accounted for the whole to the government. But the

country was studded with a great number of banks totally independent of each other, and refusing to take each other's notes. The greater part of these banks had also stopped payment, though their notes still circulated at a discount. At the same time, there was a risk in having large sums of money in the hands of the collectors. The collectors were, therefore, instructed to lodge the taxes in the banks of their respective districts; and thus the treasury had accounts open at no fewer than ninety-four banks. The sums lodged in these banks were usually composed of—1. Notes of the bank in which the taxes were deposited; 2. Notes of other banks; 3. Treasury notes bearing interest; 4. Small treasury notes not bearing interest. As to coin, that was out of the question.

The confusion thus introduced into the public accounts, as well as into private transactions, led to the formation of the second Bank of the United States. The act of incorporation was passed in the session of 1816.

Mr. Albert Gallatin has thus enumerated the advantages obtained from the Bank of the United States:—

"The principal advantages derived from the Bank of the United States, which no state bank, and, as it appears to us, no bank established on different principles, could afford, are, therefore, first and principally, securing with certainty a uniform, and as far as paper can, a sound currency; secondly, the complete security and great facility it affords to government in its fiscal operations; thirdly, the great convenience and benefit accruing to the community, from its extensive transactions in domestic bills of exchange and inland drafts. We have not adverted to the aid which may be expected from that institution in time of war, and which should, we think, be confined to two objects.

"First. The experience of the last war has sufficiently proved, that an efficient revenue must be provided, before or immediately after that event takes place. Resort must be had for that purpose to a system of internal taxation, not engrafted on taxes previously existing, but which must be at once created.

"The utmost diligence and skill cannot render such new taxes productive before twelve or eighteen months. The estimated amount must be anticipated; and advances to that extent, including at least the estimated proceeds of one year, of all the additional taxes laid on during the war, may justly be expected from the Bank of the United States.

"Secondly. It will also be expected, that it will powerfully assist in raising the necessary loans, not by taking up, on its own account, any sum beyond what may be entirely convenient and consistent with the safety and primary object of the institution, but by affording facilities to the money-lenders. Those who, in the first instance, subscribe to a public loan, do not intend to keep the whole, but expect to distribute it gradually, with a reasonable profit. The greatest inducement, in order

to obtain loans on moderate terms, consists in the probability that, if that distribution proceeds slower than had been anticipated, the subscribers will not be compelled, in order to pay their instalments, to sell the stock, and by glutting the market, to sell it at a loss; and the assistance expected from the bank is to advance, on a deposit of the scrip, after the first two instalments have been paid, such portions of each succeeding payment, as may enable the subscribers to hold the stock a reasonable length of time. As this operation may be renewed annually on each successive loan, whilst the war continues, the aid afforded in that manner is far more useful than large direct advances to government, which always cripple the resources, and may endanger the safety of a bank."

The Bank of England.—In the beginning of 1846, a circumstance occurred which increased both the deposits and the discounts of the bank, and added greatly to her profits. The railway companies who were desirous of obtaining Acts of Parliament to authorize the construction of their lines, were required to pay into the Bank of England, within fourteen days after the meeting of Parliament, 10 per cent. on the estimated amount of their capital—to be returned when the company had obtained the Act, or when the application had been rejected. Everybody wondered beforehand how so large a sum could be paid out of the amount of notes then in circulation. But the bank acted with the railway deposits as she had been accustomed to act with the public deposits previous to the payment of dividends. As fast as the money came in, it was lent out, and thus a transaction of large magnitude was effected without much difficulty. This shows the importance of a Government bank. Had the deposits been required to be lodged in the exchequer, and there to remain until reclaimed by the railway companies, the operation could not have been effected. The bank could have performed it with greater facility previous to the passing of the Act of 1844. She could then have lent out her notes *before* the lodgments were required to be made; there would have been no previous apprehensions, nor any tightness during the operation.

VI. Banking as a Science includes the history of the rise and progress of banking institutions in different countries.

With regard to money, the Egyptians, like the Chinese of the present day, had no coin, but used gold and silver bullion. These were paid and received by weight. This was the practice at a very early period of the world. The substitution of coin was not discovered till a few centuries before the Christian era.

In all countries money was originally paid away by weight. Abraham, for the purchase of a burying-place, weighed unto Ephron four hundred shekels of silver—money current with the merchant. This denotes a

distinction from the money in ordinary use. It was, probably, silver in pieces, or bars, bearing a stamp denoting its fineness and quantity, placed on it, peradventure, by Phœnician merchants. We find that the practice of weighing money continued from the time of Abraham to the days of Jeremiah. The denunciations in Scripture against false balances and deceitful weights, though applicable to all cases of selling by weight, had probably a primary reference to the weighing of money. And when the prophet Daniel said to Belshazzar, "Thou art weighed in the balance and found wanting," the reference is, probably, to a piece of money, which when weighed was found deficient in the weight marked upon it. It may be observed, too, that in ancient times silver, not gold, was usually employed as money. In the Jewish history we do not read of gold being employed as money till the time of King David, when he purchased the threshing-floor of Araunah the Jebusite. Gold is often mentioned, but merely as jewels or ornaments. The shekel is not the name of a coin, but of a weight; and it may be useful to recollect that a shekel is equal to about half an ounce; so that, reckoning silver at five shillings, and gold at 4*l.* an ounce, a shekel of silver is worth half-a-crown, and a shekel of gold about 2*l.* "A piece" is supposed to mean a shekel. When we read of thirty pieces of silver we are to understand thirty shekels of silver; that is, thirty half crowns. A talent weighed 125lbs. and was worth 3,000 shekels. A talent of silver was worth 350*l.*—a talent of gold was worth 6,000*l.* The quantity of money in circulation in Egypt was probably not great. For as every man raised his own food, and prepared his own clothing, he had but little occasion to buy anything, and, consequently, would want but little money. The quantity of money in circulation in any country will be in proportion to its internal and external trade. It seems likely, too, from the history of Joseph, that the tax or rent paid to the sovereigns was paid in the produce of the land, and not in money. But though the quantity of gold or silver employed as money might not have been considerable, yet it seems reasonable to suppose that the trade of Egypt must have supplied her with the precious metals in abundance. What, in the present day, we call the balance of trade, must have been greatly in her favour. The value of the exports must have exceeded her imports, and the balance would be paid in the precious metals. It appears that in the time of Joseph corn was sold for ready money; and from several circumstances it would appear that ancient Egypt was a wealthy country. When the Israelites quitted Egypt, *every* woman borrowed of her neighbour jewels of silver, and jewels of gold, and raiment; and as Aaron soon afterwards made a golden calf, in imitation of the Egyptians, we may infer that in Egypt the idols were made of gold. Nearly a thousand years afterwards the prophet Daniel speaks of the gold, and the silver, and the precious things of Egypt.

Banking institutions cannot flourish in any society in which property

is insecure, whether that insecurity arises from the tyranny of the government—the turbulence of the people, or the incursions of foreign enemies. In Oriental countries, where the possession of wealth invites the rapacity of the government, people conceal their wealth by burying it in the earth; and hence we read in Scripture of "treasures hid in a field." A similar practice prevailed in Europe during the times of the feudal system; and treasure-trove was a source of royal revenue, as all the concealed treasure, when found, belonged to the king. In the early ages of Greece property was very insecure; partly from the turbulence of the people, partly from the incursions of the neighbouring states. In this state of society, the temples were employed as banks. People who had got money lodged it with the priests, and the sanctity of the place preserved it from violation. Even hostile tribes would not take this treasure, lest they should incur the vengeance of the Deity to whom the temple was consecrated.

But though the temples served one purpose of banks, that of being a safe place for the deposit of treasure, they did not supersede banks formed for other purposes; and when society became more advanced, the trade of banking was carried on by individuals. The operations of Oriental banking are thus referred to in the parable of the Slothful Servant, who had hid his talent in the earth—a very common practice in the East—instead of placing it with a banker:—"Thou oughtest to have put my money to the exchangers, and then at my coming, I should have received my own with usury." These bankers were money-changers, money-borrowers, and money-lenders. They exchanged small coins for large ones, and the money of their own country for that of strangers. They also borrowed money. They received and paid out money at their tables in the same way as bankers now keep current accounts with their customers. They also received large sums—"talents"—on which they allowed interest—"usury." The rate at Athens was usually 12 per cent. per annum, or rather 1 per cent. for every new moon. People who were about to go a journey left their money with their bankers upon interest, to receive it "on their return." In most of these bargains there were no witnesses, and sometimes a banker would deny having received the money; but if he did this more than once, he lost the confidence of the public. These bankers were, of course, money-lenders, otherwise they would have had no use for the money they had borrowed. The business of a banker consists in borrowing of one party and lending to another; and the difference in the rate of interest which he gives and receives forms the source of his profit. The bankers of Greece did not lend their money by discounting bills of exchange, as bills did not then exist; but they lent it chiefly on personal security to persons who were engaged in trade, or who wanted it for other purposes. They often lent to merchants who were fitting out a cargo for a foreign port. In this case, the banker would some-

times send a person in the ship to receive payment of the loan, as soon as the cargo was sold. At other times the banker would wait for payment until the return of the ship. As the banker thus shared in the risks of the voyage, the rate of interest paid to him was sometimes so high as 30 per cent. But though a banker might lend to a merchant for the purpose of fitting out a cargo, neither he nor any other citizen could send his money abroad, except in exchange for corn, or for some other commodity allowable by law. He who suffered his money to be exported for other purposes was to be prosecuted—to have no writs or warrants issued against the persons to whom he had lent the money—and the archons were not to permit him to institute any trial in the judicial courts.

There were no usury laws at Athens. Every banker could charge or allow what rate of interest he pleased; but if he agreed to one rate, he could not afterwards charge a higher rate. Among individuals usury was practised to a great extent. The failure of a banker always caused a great sensation; and sometimes he was obliged to hide himself, in order to escape the popular indignation.

VII. Banking as a Science includes the investigation of the causes of success or failure of banking institutions.

Some banks have become involved in difficulties through a general want of system and discipline in conducting their affairs. This laxity usually shows itself in two ways—the absence of a good system of book-keeping, and the want of a proper control over the branches.

We have no horror of numerous branches. When we see that in Scotland the largest and most prosperous banks have each a large number of branches, we are led to believe that branches are not attended with any dangers which cannot be overcome by wise administration. At the same time, we are ready to admit that numerous branches require a peculiar mode of government, and a rigid system of discipline. The chief officer of such a bank should be a good banker, and something more. He must be a good administrator; that is, skilled in the administrative department of good government.

In the first place, each branch must have a good system of book-keeping, and the system must be uniform at every branch. Secondly, Care should be taken to appoint efficient officers. Thirdly, A code of laws should be drawn up, and the branch-manager should be distinctly informed as to the extent to which he may exercise his discretion, and what cases must be referred for the consideration of the directors. Fourthly, Weekly returns must be made to the head office of all the transactions, and a half-yearly balance-sheet attended with full supplementary details. Fifthly, Special reports should be occasionally required, as special circumstances may occur, either with reference to the branches generally or with reference to a branch individually. Sixthly, An in-

spector should be appointed for the purpose of visiting the branches. His duties will be to explain the instructions of the directors, and to see that they are properly observed—to maintain a uniform system of transacting business at all the branches—to instruct the officers of the branch in their duties when necessary, and to communicate the knowledge he has acquired in visiting the other branches—to answer any difficult or knotty questions that may be proposed to him by the manager, and to consult with the manager as to the best means of promoting the interests of the branch—to observe the talents and capabilities of the several officers, and to recommend for promotion any who seem to have qualities that might be usefully employed in a higher department of the bank. In large banks there are usually several inspectors.

Branches should always be kept in strict subordination to the head office. Prompt obedience to orders is a duty that must be rigidly enforced. The chairman of the Northern and Central Bank stated to the Parliamentary Committee, that at some of the branches where the heaviest losses had occurred, the managers had not obeyed the orders they had received from the directors. Similar accusations were made against some of the branch managers of the Commercial Bank of England. It is quite impossible for any bank to be well administered as a whole, if every branch is allowed to exercise an independent authority. Upon this ground, some parties object altogether to the appointment of local directors at the branches. A local board, consisting of the branch directors and the manager, are more likely than the manager alone to assume independent authority—to postpone carrying out the directions they may receive from head-quarters—and to take upon themselves the responsibility of acting somewhat at variance with the strict letter of their instructions. And although local directors may sometimes be useful in extending the connexions of the bank, or in aiding the managers with information or advice, yet, for the above or other reasons, they are now in England but very seldom appointed. The branch is under the sole care of a manager. The general manager of the bank is not merely the manager of the head office, but has authority also over all the branches. Whenever necessary or expedient, he issues circular letters of instruction to the branch managers, and these instructions the branch managers are expected to obey.

VIII. Banking as a Science includes an observation of the effects produced on monetary affairs by the acts of the Legislature.

This Act came into operation on the 31st August, 1844, and almost immediately some important changes were introduced. Up to that date the bank had never discounted at a lower rate than 4 per cent. This rate in ordinary times, had seldom varied, and all bills discounted at the

same time were charged the same rate. But on the 5th September, the rate of discount on bills was reduced from 4 to 2½ per cent., and on notes to 3 per cent. On the 18th March, 1845, the bank introduced the principle of a *minimum* rate of discount; fixing 2½ per cent. as the rate on first-rate bills, and charging a higher rate on other bills. The object of these changes was to employ a portion of the reserve in the discount of bills.

This line of conduct was by no means unwarranted by the practice of "other banking concerns." It is an established principle in practical banking, that a banker, when he cannot employ his surplus funds at so high a rate of interest, as he wishes to obtain, should employ those funds at a lower rate, rather than keep them unemployed in his till. And it is also an established practice to charge different rates of discount on different bills, according to the class or character of the bills—the respectability of the parties—the time they have to run—and a variety of other circumstances. In adopting these regulations, therefore, the directors were only performing the work assigned to them, of conducting the banking department "like any other banking concern issuing Bank of England notes."

These changes gave rise, in the Parliamentary Committees of 1847, to some discussion upon the question as to whether the Bank of England governed the market-rate of interest; or the market-rate of interest governed the bank-rate. There can be but little difference of opinion upon this subject. The "market-rate" of interest is the rate which bankers and bill-brokers charge for discounting first-class bills to the public. When the foreign exchanges are bringing gold into the country, and notes are issued against this gold, the abundance of money in the hands of the bankers and bill-brokers causes the market-rate of discount to fall below the bank-rate. If during the season the bank charges a high rate, she gets but few bills. On the other hand, when gold is going out of the country, and money becomes scarce, the market-rate is higher than the bank-rate. If during this period the bank charges a low rate, she must soon limit her discounts, or her reserve will be exhausted. But, though the bank cannot change the course of the current, she can give it increased strength. Though she cannot make money dear when it is cheap, nor cheap when it is dear, yet when it is cheap she can make it cheaper, and when it is dear she can make it dearer. Hence, every alteration in the bank-rate has always an immediate influence on the market-rate.

IX. Banking as a Science includes an inquiry into the effects likely to be produced on banking operations by public events (such as war, the discovery of gold mines, Government loans, harvests, railways, &c.), and an examination of any new principles or theories proposed for the regulation of our monetary institutions.

"After the measure (the establishment of one bank of issue) had once been carried into effect, the charges which the country bankers would be compelled to make upon that accommodation which they would still have the power of affording, must be considerably increased."

"Why?" . . . . "Because they would then get no profit upon the notes; at present they can afford to advance money at a low rate of interest when issued in their own notes, because of the profit upon those notes. When I was in Ireland, I discounted bills at the same rate which was charged by the Bank of England here, and for the same reason, because I issued my own notes; but if the country bankers had to bring the money from a distance and lend it to their customers, they must get a greater interest from their customers than they could get by employing it in London or elsewhere, and hence they must make, either in the form of interest, or in the form of commission, heavier charges than they made before."

"The profit on the circulation being thus reduced, there would be a further effect by the limitation of banking establishments; for some of those establishments are so small, and established in such remote places, that they would scarcely pay the expense of conducting them, unless for the profits of the circulation; and yet the withdrawal of those establishments, though connected with no great profit to the bank, would be attended with very considerable loss and inconvenience to the inhabitants of the places, because those banks act as receivers of the surplus capital, and hence they are useful to persons who have money to place in them; they act as discounters and granters of loans, and hence they are useful to the productive industry of the country; they are also useful as banks of remittance, for the purpose of making payments from those places elsewhere, and hence they are useful to traders; and those useful purposes, as far as many small banks are concerned, would be altogether annihilated, if the establishments did not issue their own notes."

"In your opinion, the suppression of their circulation would render it necessary for them to charge a higher commission upon their operations, or a higher interest upon the loans which they make?" . . . . "With regard to those small establishments, I do not think any rate of commission could pay the expense: with regard to the larger establishments, you might make up for the deficiency of profit upon the circulation by an increased charge of commission; but with regard to small establishments, in remote places, the business is not sufficient, even with the charge of commission, to pay the expense without the profits of the circulation: annihilation of the circulation would lead to annihilation of the bank."

SECTION III.

THE MENTAL OPERATIONS PRELIMINARY TO REASONING AS APPLIED TO BANKING.

Logic, in the sense in which we use the term, includes not merely the act of reasoning, but also all the auxiliary processes that take place in the mind previous to the act of reasoning. We shall, in this Section, select four of these processes. They are called naming, defining, analysing, and classifying.

When an object is presented to us for the first time we may give it a name, we may inquire what it is, we may take it to pieces and consider its parts, and we may consider how many sorts or kinds of the same object may be in existence;—we will illustrate these operations, by quotations from our own writings, with reference to the business of banking.

Naming.—The term *bank* is derived from *banco*, the Italian word for bench, as the Lombard Jews in Italy kept *benches* in the market-place, where they exchanged money and bills. When a banker failed, his bench was broken by the populace; and from this circumstance we have our term *bank-rupt.*

Definition.—A banker is a dealer in capital, or, more properly, a dealer in money. He is an intermediate party between the borrower and the lender. He borrows of one party and lends to another, and the difference between the terms at which he borrows and those at which he lends form the source of his profits.

Analysis.—The business of banking consists in receiving deposits of money upon which interest may or may not be allowed, in making advances of money principally in the way of discounting bills, and in effecting the transmission of money from one place to another. Private banks in metropolitan cities are usually the agents of the banks in the provinces. In making payments many country banks issue their own notes.

Classification.—Banks have been divided into public and private. A private bank is that in which there are but few partners, and these attend personally to its management. A public bank is that in which there are numerous partners, and they elect from their own body a certain number who are entrusted with its management. The latter are usually called joint-stock banks.

Requesting the reader to bear in mind these illustrations, we now proceed to make a few remarks upon each of these mental operations.

Naming.—All words are names. The names of things are called in grammar substantives. The names of qualities are called adjectives. The names of actions are called verbs. The names of modes or manners of actions are called adverbs. The names of relations are called prepositions. Names denoting mental acts are called conjunctions.

Names are merely arbitrary signs, and have no natural connection with the things they denote. What we call a bank might have been called by any other name. The use of names is to enable us more readily to distinguish one thing from another, to enable us to preserve a register of things in our own mind, to enable us to recall anything to our minds and to reason about it, and to enable us to preserve a record of our reasonings. Another use is to enable us to communicate our knowledge of things to one another. Without that collection of names, which we call language, we should scarcely be able to hold intercourse with each other. Different nations use different languages: that is, they give different names to the same things; but none of these names have any natural or essential connexion with those things. One name is as good as another. But when, in our own country, any name has been given to anything, it is desirable that we should always call that thing by that name, and not give the same name to any other thing. If this had always been done, much erroneous reasoning, not only in banking, but also in other arts and sciences, would have been avoided.

Sometimes a word is the name of only one thing; sometimes the same name is applied to more things than one.

Thus the word bank is applied to the firm or copartnership who carry on the business of banking; and it is also applied to the building in which the business is carried on. Dr. Whately observes, that all the principal terms in Political Economy, as value, wealth, labour, capital, rent, wages, profits, have different meanings, and are used in different senses by different writers. The same observation might be applied to the words money, currency, circulation, and circulating medium. Some writers by the word money mean only coin; others apply the word not only to coin but to bank-notes, bills of exchange, chèques on bankers, and even to book-debts. Some have contended that the deposits in the Bank of England should be called "currency" as well as bank-notes. And by the "circulation of the Bank of England" we may mean either the amount of notes circulated by the issue department, or the amount of notes in the hands of the public.

Definition.—Definition is of two kinds: the first is called a definition of the name, the second a definition of the thing. To define a name is merely to state the meaning of the word, or, if the word has two or more meanings, to state in which of these meanings we wish to be understood. In defining the name there is no necessity that we should be acquainted with the nature of the thing. It is sufficient to mention any one property or circumstance by which it is distinguished from other things of a different class. But in defining *a thing* we also state wherein it differs from other things of the same class. Thus, if a person who never before heard the word were to ask me what I mean by the word LEDGER, I might tell him it is the name of a book which is used by bankers and merchants in keeping their accounts. This would be a definition of the word. But were I giving a lesson in book-keeping, this would not be sufficient. I must then state wherein this book differs from the other books, how it is ruled, how the entries are made, how it is checked, what are the particular objects of keeping it, &c. This would be a definition of the thing.

In some cases, however, there is but little if any distinction between a definition of the name and that of the thing. If I am asked what is the meaning of the word Insolvent, I may reply, an insolvent is a man who cannot pay his debts. Here is a definition of both the word and the thing. Perhaps the same remark will apply to the following definitions taken from my introduction to Banking Book-keeping :—

Before explaining the banking system of book-keeping, I will define a few terms which are often used in connexion with the subject. By the word *bill*, is always meant a bill of exchange not yet due. The word *cash* denotes the various items included in a credit or cash entry, and may denote *due* bills, cheques, bank notes, country notes, or coin. The terms *cheque* and *draft* are used synonymously, and denote an order on a banker, payable on demand. The word draft is never used in London to denote a bill of exchange, though this use of the term is very common in the country. Both bills and drafts are often called *articles*; and if they are cash, they are styled *cash articles*. An *addressed bill* is a bill made payable at a banking-house. A discounted bill is usually called a *discount*. By *money* is always meant coin. To *post* an article is to *place* or *enter* it in the ledger. One book is said to *mark against* another when the same entry is made in both books. One book is *checked by* another, when any error in one book would be detected by some operation in another. To *check* a book, or an account, is to examine it, and prove it correct, or make it so. To *cast* or *cast up*, means to add together. The *balance* of an account is the difference between the credit and the debit side. An account is said to *balance* when the credit and the debit side are of the same amount. To *balance* an account is to enter the balance, and to add up both sides, and then to bring down the balance as a new amount. The *credit* side of an account, or that on which the cash received is placed to the credit of a customer, is the right-hand side as you face the ledger; the *debit* side is the left-hand side. In London the establishments of bankers are usually called *banking-houses*, not banks. A person who has an account at a banking-house is said to *keep a banker*.

When a word has two or more meanings, to define the word is to state in which of these meanings the word is to be understood. If I am told that a man has lost all his *money*, I may ask, whether I am to understand that he has lost all the money he had in his pocket, or has lost the whole of his property?—for the word money is used in both of these senses.

Things are defined by enumerating some of those attributes

wherein they differ from other things. We have stated, at page 22, the rules given by scholastic logicians for the definition of things. But few things can readily be defined in this formal manner: and we may adopt any mode we please that will convey to the mind of the party we address a correct idea of what we wish to describe: and we may vary our definitions with the various characters or attainments of these parties. If I wished to explain what is meant by "a Progressive Ledger," or "the Horizontal System of Book-keeping," I should not address a professional accountant in the same way as I would a Doctor of Divinity. Sometimes we may give a definition by specifying an example or practical illustration of the thing to be defined. A witness examined before the Banking Committee of 1832 was asked, "What is your idea of overtrading?" He replied, "I call that overtrading when a man builds a manufactory, and extends his business, not from any extra demand for the manufactured article, but because he is furnished with the means of increasing the supply of it." In the Committee of 1841, a witness was asked:—

What do you mean by the expression "currency principles?"—I mean by the phrase "currency principles," a bank which shall do nothing else but issue notes for gold, and gold for notes.

What do you mean by the expression "banking principles?"—I mean by "banking principles," notes that are issued in the repayment of deposits, or in the discount of bills, or in the making of loans: at the same time, I would state that I merely used those words in the sense in which they are used by the writers who advocate those peculiar principles, which they call currency principles; I do not at all admit that those are the correct principles upon which the currency should be administered.

Analysis.—To analyse a thing is to take it to pieces and observe the parts of which it is composed.

We may analyse a word. Some words are simple, as book, bank, manager, ledger; others compound, as book-keeper, bank-director, general-manager, bill-ledger. Now, to take these compound words to pieces, and to gather their import from the simple words of which they are compounded, is to analyse them.

We may analyse a sentence, or, as it is called in logic, a proposition. Take the following proposition: This bank grants interest on deposits. Here is the subject, "this bank;" the predicate, "grants interest on deposits;" and the copula, "is" (implied is in granting); and these form the proposition.

We may analyse a ledger account. We take the credit side and the debit side, and mark off each item against some other book in the office; we cast up both sides, and see if the balance agrees with that of the other books.

We may analyse the balance sheet of a bank. We will take first the liabilities and then the assets; on the left hand we perceive first, the amount due to the shareholders; then, the amount due to the public on current accounts, deposits, receipts, circular notes, &c.: on the other hand, we note the investments in Government securities, loans, bills of exchange, &c.; and if we were on a committee of investigation, we should inquire if these bills are good, and the loans properly secured; and we should ultimately examine what amount the bank had in hand over and above the amound of its paid-up capital. This is called analysis.

We may analyse an argument. To do this, we first state the proposition to be proved, and then the argument by which it is proved; thus, at page 3, the proposition to be proved is:—

It is advantageous to keep a banker. The first argument is, that by keeping a banker your money will be lodged in a place of security. If placed in logical form, the argument will stand thus:—

> It is advantageous to be able to *lodge your money in a place of security;*
> By keeping a banker you will be able to *lodge your money in a place of security;*
> Therefore, it is advantageous to keep a banker.

In the same way you may analyse the other arguments on the same page. The words in italics are what logicians call the middle term of the syllogism, or the argument.

Classification.—To classify a thing is to place it in the class

to which it belongs: and this involves three operations. We may inquire under what class it falls,—what are the other things that fall into the same class,—and what are the inferior classes that should be placed under it. For examples of this, I refer you to page 49.

You will observe that all things may be classified according to any attribute in which they differ from each other. *Banks* are classified into private banks and joint-stock banks: and these again may be classified as chartered and unchartered banks. *Coins* may be classed, according to their materials, into gold, silver, and copper coins: again, according to their country, into Greek coins, Roman coins, English coins, &c. *Bills of Exchange* may be classed into foreign bills and inland bills, large bills and small bills, long bills and short bills, undue bills and overdue bills, good bills and bad bills. Much of our reasoning depends upon correct classification. And when we can readily place anything in the class to which it properly belongs, our reasoning respecing it becomes comparatively a very easy operation.

These operations of naming, defining, analysing, and classifying, should always take place previous to reasoning. To reason well upon any subject, we must first endeavour to understand it. Many of our erroneous conclusions arise from calling things by wrong or indefinite names, or from not being acquainted with the nature of the things, from not investigating the parts of which they are composed, or not observing the classes to which they belong. To state a question clearly will often prevent much reasoning upon the subject. The disputes of writers on banking, as on other things, often arise from their not clearly understanding each other's meaning; and the first step towards understanding the meaning of other people is clearly to understand our own.

SECTION IV.

OF MATHEMATICAL AND MORAL REASONING IN REFERENCE TO BANKING.

By Mathematical Reasoning we mean that kind of reasoning which is used chiefly in the mathematical sciences, as arithmetic, geometry, navigation, &c. By Moral Reasoning we mean that kind of reasoning which is used chiefly in the moral sciences, as ethics, politics, political economy, &c. The first is founded upon truths of intuition, such as are known by our own senses, consciousness, or intellect (see page 6); the second has reference to truths known to us from experience, analogy, or testimony. The first kind of reasoning is called methematical, scientific, or demonstrative. The second kind of reasoning is called moral, and sometimes probable, or contingent. The distinction between them is thus stated by Dr. Campbell, in his "Philosophy of Rhetoric:" —

"Demonstration is built on pure intellection, and consists in an uninterrupted series of axioms. Moral evidence is founded on the principles we have from consciousness and common sense improved by experience; and as it proceeds on this general presumption or moral axiom, that the course of nature in time to come will be similar to what it has been hitherto, it decides, in regard to particulars concerning the future from the past, and concerning things unknown, from things familiar to us . . . .

"But that the nature of moral evidence may be better understood, it will not be amiss to remark a few of the most eminent differences between this and the demonstrative.

"The first difference that occurs is their subjects. The subject of the one is, as has been observed, abstract independent truth, or the unchangeable and necessary relations of ideas; that of the other, the real, but often changeable and contingent connexions that subsist among things actually

existing. Abstract truths, as the properties of quantity, have no respect to time or to place, no dependence on the volition of any being, or on any cause whatever, but are eternally and immutably the same. Take, for instance, the following affirmations, 'The cube of two is the half of sixteen,'—'The square of the hypotenuse is equal to the sum of the squares of the sides,'—'If equal things be taken from equal things, the remainders will be equal.' Contrary propositions, as, 'The cube of two is more than the half of sixteen,—'The square of the hypotenuse is less than the sum of the squares of the sides,'—'If equal things be taken from equal things, the remainders will be unequal,' are chargeable not only with falsity, but with absurdity, being inconceivable and contradictory. Whereas, to these truths which we acquire by moral evidence, 'Cæsar overcame Pompey,'—'The sun will rise to-morrow,'—'All men will die,' the opposite assertions, though untrue, are easily conceivable, without changing, in the least, the import of the words, and therefore do not imply a contradiction.

"The second difference I shall remark is, that moral evidence admits degrees, demonstration does not. This is a plain consequence of the preceding difference. Essential or necessary truth is incompatible with degree. In moral reasoning we ascend from possibility, by an insensible gradation, to probability, and thence, in the same manner, to the summit of moral certainty. On this summit, or on any of the steps leading to it, the conclusion of the argument may rest. Hence the result of that is, by way of eminence, denominated science; and the evidence itself is termed scientific.

"The third difference is, that in the one there never can be any contrariety of proofs; in the other, there not only may be, but almost always is. If one demonstration were ever capable of being refuted, it could be solely by another demonstration, this being the only sort of evidence adapted to the subject. But to suppose that contraries are demonstrable is to suppose that the same proposition is both true and false, which is a manifest contradiction. Consequently,

if there should ever be the appearance of demonstration on opposite sides, that on one side must be fallacious and sophistical. It is not so with moral evidence, for, unless in a few singular instances, there is always real, not apparent evidence on both sides. There are contrary experiences, contrary presumptions, contrary testimonies, to balance against one another. In this case, the probability, upon the whole, is in the proportion which the evidence on the side that preponderates bears to its opposite.

"The fourth and last difference I shall observe is, that scientific evidence is simple, consisting of only one coherent series, every part of which depends on the preceding, and, as it were, suspends the following: moral evidence is generally complicated, being in reality a bundle of independent proofs. The longest demonstration is but one uniform chain, the links whereof, taken severally, are not to be regarded as so many arguments, and, consequently, when thus taken, they conclude nothing; but taken together, and in their proper order, they form one argument, which is perfectly conclusive. In moral reasoning, on the contrary, there is often a combination of many distinct topics of argument no way dependent on one another. Each has a certain portion of evidence belonging to itself, each bestows on the conclusion a particular degree of likelihood, of all which accumulated, the credibility of the fact is compounded. The former may be compared to an arch, no part of which can subsist independently of the rest. If you make any breach in it you destroy the whole. The latter may be compared to a tower, the height whereof is but the aggregate of the heights of the several parts reared above one another, and so may be gradually diminished as it was gradually raised."

Mr. Samuel Bailey, in his 'Theory of Reasoning' has clearly described those mental operations that take place in regard to these two kinds of reasoning,—one he calls "demonstrative," the other "contingent." He gives the following illustrations of moral or contingent reasoning:—

"I am walking, I will suppose, on the sea-shore; and

perceiving a quantity of sea-weed lying on the beach, while the water is at the moment a quarter of a mile from it, I conclude that the tide has ebbed, and left the weed where I perceive it lying.

"I notice the print of a small foot on the sand, and I feel pretty sure that it was made by a child.

"I look upon the multitude of gay people walking along the beach, and I am struck with the thought that sooner or later, and, at the latest, in no very long period, they must all die.

"I observe the sun to be exactly on the meridian, and I calculate that at a place where a friend of mine resides, 15 degrees in longitude to the west of my position, it is just eleven o'clock.

"The facts which determine the mind to the belief, or lead it to the discernment of other facts not immediately manifest, are usually spoken of under the designation of evidence or proofs; and when expressed in propositions preceding a conclusion, under that of premises.

"To reason is to go through proofs or evidence for or against any alleged fact. Frequently the fact alleged or expressed in the conclusion is placed before the mind first, and the proof is adduced to substantiate it; but it also frequently happens, in the course of reflection, that a fact, or combination of facts, leads the mind to the belief or to the discernment of a fact before unknown, which is then seen in its logical place as the conclusion.

"For such inferences one condition is always necessary. The reasoner must have been acquainted with a similar case or similar cases. We are determined to the belief of an unobserved fact by having observed or known a similar fact to have taken place in similar circumstances. It is this resemblance in the cases which leads us to infer that unobserved events have happened, are happening, or will happen."

The above refers to moral or contingent reasoning. The following is a description of mathematical or demonstrative reasoning:—

"There is, however, another mental operation to be noted,

whish consists not in our being led to believe, or in our inferring from what we perceive and know, something else, neither perceived nor known; but in our being led to discern some fact, not directly manifest, through the medium of some other fact or facts in which it is implied.

"The lines A and B are respectively equal to C, and therefore they are equal to each other. Here the mind observing successively the equality of A to C, and that of B to C, is thence led to discern the mutual equality of A and B, which is not self-evident or immediately discernible from the inspection of A and B alone. It is plain that in reasoning of this second species, which is with great propriety termed demonstrative, we intuitively discern, at each step, that one fact implies another, and discern, too, that a denial of the implied fact involves a contradiction. But demonstrative reasoning is not confined to the science of quantity. It is to be found in all departments of human knowledge. Whenever the mind discerns one fact to be implied in another, or the exclusion of a fact to be implied in another fact, it reasons demonstratively, whether they are facts of quantity or otherwise. Examples of this truth might be multiplied without end, but the few which follow will be sufficient for illustration. That portrait is a striking likeness of two different persons; therefore they must resemble each other. The two litigants cannot both be the exclusive owners of the property in dispute; therefore one of them must be urging a wrong claim. The traveller who was attacked had no money with him; therefore he could not be robbed of a large sum as reported. The planets are opaque bodies; therefore they must shine by light derived from an external source. Under this species of reasoning must be ranked that which is usually denominated syllogistic, but which I shall venture to call class-reasoning, because perfect specimens of it, as I shall hereafter show, are found in the form of enthymemes."

Mr. Bailey further states that these two kinds of reasoning are often intermingled:—

"It seems necessary, in order to complete our survey of

the two great divisions of the subject, to advert more particularly to a circumstance already indicated in some of the examples introduced into the preceding exposition; viz. that demonstrative reasoning, even when non-syllogistic, is by no means confined to mathematics or the science of quantity; but it is perpetually intermixed with contingent reasoning on matters of a moral or a physical nature.

"This might be exemplified by a thousand instances in common life. Take, for example, the course pursued by an advocate in defending his client from a criminal accusation. If he relies, as he is sometimes compelled to do, upon testimony to his client's character, the argument is purely contingent: he attempts to establish the moral excellence of the man, and then infers that a person of such estimable qualities would not be likely to commit the offence of which he is accused. But if, instead of this, he endeavours to prove an *alibi*, the logical procedure is altered. The crime (we will suppose) was committed in London, and he produces several credible witnesses who swear, that at the very moment when the deed was perpetrated, they saw the accused in Edinburgh. In this hypothetical case the reasoning of the defence is mixed. When from the number, and respectability, and concurrence of the witnesses, the advocate infers that their testimony is true, he employs a contingent argument; but when he proceeds further, and concludes from the attested fact of his client's being in Edinburgh that he could not have committed a crime at the same moment in London, this step in the reasoning is demonstrative."

These quotations from Dr. Campbell and Mr. Bailey will have given us a clear idea of the nature of mathematical and of moral reasoning. We will now trace their application to banking. As banking is one of the moral sciences (a portion of the science of Political Economy), the kind of reasoning most generally employed is that which is called moral. But, as Mr. Bailey observes, in all our reasonings there is usually a mixture of these two kinds of reasoning; and hence much mathematical reasoning will be found applicable to our reasonings about banking. We will give a few examples.

Mathematical Truths.—Two and two make four; twelve pence make a shilling, and twenty shillings make a pound; a light sovereign is not so heavy as one that is of full weight. A banker who receives only ten shillings in the pound on the amount of a bill that he has discounted, will lose ten shillings in the pound. The discount of a bill charged at five per cent. will be more than if discounted at four per cent. The total of a column of figures will be equal to the sum of all the particular items. If in trying the balance at night the two sides of the balance sheet are not equal, then some error has taken place during the day. If the account in a customer's book does not correspond with the account in the banker's ledger, one or both must be incorrect. If during the year the banker's losses are more than his profits, he will not be so rich at the end of the year as he was at the beginning. If a man has put his money into a bank, it cannot be stolen out of his house.

Moral Truths.—Banking institutions are useful to the public. When nations, or individuals, exchange their commodities with each other, it is useful to have some one commodity as a medium of exchange—it is necessary that this medium should be capable of subdivision, so as to be able to express small quantities, as well as large ones.—When these transactions become numerous, it is useful to have a class of men part of whose business shall be to exchange small coins for large ones.—It is also useful that these men should sometimes lend sums for a certain time to those people who have occasion to borrow.—It is also useful to those people who have sums for which they have no immediate use, to be able to place them for security and convenience in the hands of bankers.—If a banker receives from a number of individuals a large amount of money, he may employ a portion of it in loans to other parties; for although the whole may be repayable on demand, yet it is not probable that the whole will be demanded at any one time.—As a banker gets interest for what he lends, he may be able to allow interest on a portion of what he borrows.

To show the intermixture of mathematical and moral

reasoning, in a case of banking, we will take Mr. Bailey's own example:—It is an obvious proposition, that nothing can be in two distant places at the same time. Now this bill of exchange, during the whole of the day on which it fell due, was in London; therefore, it could not on that day have been presented for payment at Edinburgh. Here is an obvious conclusion, and the two propositions and the conclusion put together form a mathematical argument, and are an example of mathematical reasoning. But a party to a suit with reference to the above argument may say,—"I admit your first proposition—that is plain enough; but I deny that the bill in question was during the whole of that day in London. That is a question of fact, which can only be proved by witnesses; and I contend that your witnesses are either dishonest or mistaken, or had not the means of information." Here we have to prove a question of fact by means of witnesses. Here are no truths of intellect; no self-evident propositions. Here we have to investigate circumstances and weigh probabilities; and though the conclusion may be equally satisfactory, the mode of proceeding is very different from that followed in mathematical reasoning. This is called moral reasoning.

SECTION V.

OF INDUCTIVE AND DEDUCTIVE REASONING IN REFERENCE TO BANKING.

We have explained the nature of induction and deduction at page 121. In farther explanation, we make the following quotation from Mr. Mill's 'System of Logic Ratiocinative and Inductive:'—

"Reasoning," says Mr. Mill, "in the extended sense in which I use the term, and in which it is synonymous with inference, is popularly said to be of two kinds: reasoning from particulars to generals, and reasoning from generals to

particulars; the former being called induction, the latter ratiocination or syllogism.

"When, from the observation of a number of individual instances, we ascend to a general proposition, or when, by combining a number of general propositions, we conclude from them another proposition still more general, the process, which is substantially the same in both instances, is called induction.

The conclusion in an induction embraces more than is contained in the premises. The principle or law collected from particular instances, the general proposition in which we embody the result of our experience, covers a much larger extent of ground than the individual experiments which are said to form its basis. A principle ascertained by experience is more than a mere summing up of what we have specifically observed in the individual cases that we have examined; it is a generalisation grounded on those cases, and expressive of our belief, that what we there found true is true in an indefinite number of cases which we have not examined, and are never likely to examine.

"In every induction we proceed from truths which we know to truths which we did not know; from facts certified by observation to facts which we have not observed, and even to facts not capable of being now observed; future facts, for example; but which we do not hesitate to believe upon the sole evidence of the induction itself.

"Induction, then, is that operation of the mind, by which we infer what we know to be true in a particular case or cases, will be true in all cases which resemble the former in certain assignable respects. In other words, induction is the process by which we conclude that what is true of certain individuals of a class is true of the whole class, or that what is true at certain times will be true under similar circumstances at all times."

It will thus be seen that induction infers laws from facts, and proves the existence of causes by tracing their effects, while deduction derives facts from laws and infers effects

from their causes. In inductive reasoning the proof is from the parts to the whole; in deductive reasoning it is from the whole to the parts.

Deductive reasoning is often expressed in the form of syllogism. A syllogism consists of three propositions: the major, the minor, and the conclusion. The major proposition is usually the general proposition from which the argument is derived. The minor proposition is placed second, and shows in what way the general proposition bears upon the particular proposition which is to be proved. The third proposition is the conclusion, or the deduction from the two preceding propositions. This deduction should be so obvious that, admitting the two preceding propositions to be true, there can be no doubt of the truth of the conclusion. For example, the following is an argument expressed in the form of a syllogism:—

1. *A bank that has a large amount of deposits* must stand high in public estimation:
2. The London and Westminster Bank *has a large amount of deposits;*
3. Therefore, the London and Westminster Bank must stand high in public estimation.

These two propositions, the *major* and the *minor*, have not derived these titles from the circumstance of one being placed first and the other second, but from quite a different cause. In a syllogism there are three terms as well as three propositions. These terms are called the major, the minor, and the middle term. The major term is the predicate of the conclusion—thus, in the above syllogism, "must stand high in public estimation," though it is composed of several words, is called the *major term.* The minor term is the subject of the conclusion—thus, the "London and Westminster Bank," in the above syllogism, is the *minor term*, and "has a large amount of deposits," is the middle term. The middle term is called the argument, and is the term which is introduced to prove the connection between the two terms of the conclusion. The middle term appears in both the first two propositions,

but does not appear in the last. The major proposition is that in which the major term is united with the middle term. The minor proposition unites the minor term and the middle. In the above syllogism the middle term is in italics.

The major and minor propositions are always presumed to be true; and the object of the syllogism is to show more clearly that the conclusion is legitimately deduced from these two propositions. When the conclusion is thus placed last, the first two propositions are called premises, and the conclusion is called an inference or a deduction. When in our reasonings we place the conclusion first, it is called a proposition to be proved, and the minor term becomes the argument. The above syllogism may be changed thus—

The London and Westminster Bank stands high in public estimation. How do you prove this? It is proved by the large amount of its deposits.

This mode of stating the argument is quite as conclusive as the syllogism, and is quite as much a deductive argument. In conversation this is the usual mode of reasoning; and when we wish to distinguish it from the syllogism, we call it an enthymeme. It may be expressed in various ways—as, the large amount of deposits in the London and Westminster Bank shows that it stands high in public estimation. Seeing that the London and Westminster Bank has a large amount of deposits, it must stand high in public estimation. That the London and Westminster Bank stands high in public estimation is proved by the large amount of its deposits.

Banking has a collection of general principles; that is, of truths which have been established by evidence, and are capable of universal, or, at least, of general application. These truths can be specified, and defined, and arranged in a systematic order; and when so arranged, they constitute the science of banking. This science, as we have stated, is not a mathematical, but a moral science. Its general principles are not truths of intuition; they are not demonstrated by the evidence of the senses, or of consciousness, or of the intellect. They rest, like the general principles of other moral sciences, upon the evidence of experience, analogy, and tes-

timony. Its general principles are, in the first instance, discovered, and proved by induction. But in the application of these principles to individual cases we use deduction. Still, in the practical details of banking, as well as in establishment of its general principles, we have often occasion to reason by induction.

The general principles of banking, we stated, were discovered and established by induction. The first bank that was established was an experiment. Its success led to the establishment of another, and that of another, and so on, until the success of these few banks led to the belief that all banks that should hereafter be established and conducted in the same way would also be successful. The quotations from our own writings, inserted in this work, will have shown the reader the rise and progress of the various principles of banking. For a summary of these principles, we may refer more particularly to the section on "Banking as a Science." I have said that these principles are first discovered and proved by induction, but their application to individual cases is made by deduction. Take the following illustration:—

All well-managed joint-stock banks are successful when they have plenty of good business;

Yonder town, which is now without a bank, would supply plenty of good business to any well-managed joint-stock bank that might be established there:

Therefore, a well-managed joint-stock bank would be successful if established in that town.

Here, it is obvious to common sense—the only umpire to which we can appeal—that the conclusion is a legitimate deduction from the two preceding propositions, which we call the premises. But by what process shall we prove the truth of these two propositions? The first, or major proposition, as it is called, is not a truth of intuition, nor can it be deduced from any mathematical or self-evident propositions. We believe that all such banks will prosper under such circumstances, simply because they usually have done so. It is a moral truth, resting upon the evidence of experience,

analogy, and testimony, and proved by a process of induction from some known and established facts. But were we called to prove the truth of the second proposition, we must take another course. We might say: This town has many wealthy inhabitants who would deposit large sums in the bank; it has many manufacturers and traders who would bring their bills for discount to the bank; it has a great deal of internal trade which would circulate a large amount of bank-notes; and it has large transactions with other towns, and would require to make remittances in bank-bills, or would have to make payments through the bank to its connections in London or elsewhere. Now these are statistical facts to be proved by observation and inquiry, and, if proved, we then infer that such a town would supply good business to such a bank. Having thus established our premises, we arrive by the ordinary process to the conclusion, that such a bank would prosper in that town.

But it is not merely in the establishment of the general principles of banking that we make use of induction; we use it also frequently in the discussion of the practical details. The following is an example of inductive reasoning in practical banking:—All the bills I have discounted for that man, and which have become due, are unpaid; therefore, all the bills I have discounted for him, and which are not yet due, will also be unpaid.

It will be perceived that this argument is not conclusive. The bills that are not yet due may be paid. Inductive reasoning is conclusive only in regard to individual cases when all the individuals have the same attributes. This is the case in the physical sciences. In moral reasonings this uniformity does not always exist. But the force of the reasoning is strengthened in proportion to the number of cases from which we draw our inferences. Thus, I have one bill unpaid, and I infer that all the other bills I hold upon the same party will also be unpaid; I have a second bill unpaid, and I am strengthened in my inference; I have a third bill unpaid, and this again is a farther proof, and so on.

A banker also reasons by induction when from one act of

duplicity he infers that his customer is a man not to be trusted; from one breach of promise refuses to take his word again, or from one act of folly pronounces the party to be insane. Also when he declines to discount any more bills on a party because he holds one that is dishonoured; or when he refuses to grant a new loan because the applicant was not punctual in paying the last. In all these cases the banker reasons upon the principles of induction. His conclusions are wider than the premises. The inferences may be unwarranted upon the principles of scholastic syllogism, but they are warranted upon the principles of common sense. And the more prompt a banker is in drawing correct conclusions from such premises, and the more firmly he adheres to the conclusions he has thus derived, the more successful will he be in the management of his bank.

We shall conclude this section by stating the following examples of erroneous induction:—

The directors of a public company have been accused of "cooking their accounts;" therefore, the directors of all public companies are in the habit of cooking their accounts. A banker may make a great profession of religion, and yet misappropriate the securities placed in his hands by his customers; therefore, all bankers who make a profession of religion will act in the same way. All the principal officers in the banks of Scotland are good bankers; therefore, every man in Scotland is born a banker. Some of our most successful English banks have been managed by Scotsmen; therefore, Scotsmen know how to manage joint-stock banks better than Englishmen. A few instances have occurred of parties, who had never been in a bank before, becoming good managers; therefore, merchants, manufacturers, officers in the army, and country gentlemen, are as likely to be good bank-managers as those who have been trained to the business. Some very efficient and successful managers have received very inadequate salaries; therefore, a liberal salary has no effect in increasing the efficiency of a manager. I was detained a long time at the bank when I went to receive payment of a cheque; therefore, all the cashiers in that bank

are very slow, and very inattentive to the convenience of the public. One of the clerks has robbed the bank; therefore all the clerks are dishonest, and ought to be treated with suspicion. One of the directors has been gambling in shares on the Stock Exchange; therefore, all the directors are engaged in reckless speculation. Several joint-stock banks have declared dividends out of their capital; therefore, the dividends of all the joint-stock banks are paid out of their capital. All the joint-stock banks that have hitherto been established in London have been very successful; therefore, all the joint-stock banks that may hereafter be established in London will be equally successful. The importations of gold have sometimes been attended with a general advance in the prices of commodities; therefore, all importations of gold will be attended with a general advance of prices. When the market-rate of interest has been high, the prices of the funds have often been low; therefore, in future, whenever the rate of interest is high, the funds will be low. The Act of 1844 was suspended in the pressure of 1847; therefore, in every future pressure it will again be suspended. That writer has expressed some erroneous opinions in regard to the Act of 1844; therefore, none of his opinions on any subject are worthy of the slightest consideration.

PART V.

THE APPLICATION OF THE FIRST CLASS OF THE PRINCIPLES OF REASONING TO THE ART AND THE SCIENCE OF BANKING.

THE first class of the principles of reasoning, as we have stated at page 29, are:—1. The relation of subject and attribute. 2. The relation of a whole and its parts. 3. The relation of genus and species. 4. The relation of cause and effect—physical causes. 5. The relation of cause and effect—moral causes. 6. The relation of cause and effect—conditional causes. 7. The relation of cause and effect—final causes. In this part of our work we propose to consider the application of these principles of reasoning to the art and the science of banking.

I have also observed, at page 22, that, to reason well, we must understand the question that we reason about. There are numerous ways in which we may mistake the question. We may mistake the meaning of the words or the nature of the inquiry, or mistake one question for another; and hence we may be led into erroneous conclusions respecting the subject of investigation. An error of this kind is called, by scholastic logicians, *ignorantia elenchi*—a mistake of the question.

Sometimes we are led into erroneous conclusions from mistaking the meaning of the words. Thus, when we are told, by the Act of 1844, than any increase in the circulation of the Bank of England will be attended by an increase in the amount of her gold, we may conclude that when the Bank of England increases her circulation, by the payment of the public dividends, she at the same time increases her gold; when we see that some of the London joint-stock banks announce, in their advertisements, that they give interest on current accounts, we may infer that every one

who keeps a current account with these banks receives interest upon the daily amount to his credit; and when we observe that the Bank of London heads its prospectus with the words "Empowered by Royal Charter," we may suppose that all the shareholders in the Bank of London have only a limited liability. But we have been led into these incorrect conclusions and inferences in consequence of mistaking the meaning of the words; for, in the first instance, the word "circulation" denotes the circulation of the issue department, and not the amount of the notes in the hands of the public. The interest on the current accounts given by some joint-stock banks in London is not upon the amount of the daily balance, but upon the lowest balance to the credit of the account on any one day in the month, and then only upon certain conditions. And all the joint-stock banks, formed since the year 1844, are compelled to take charters; but these charters do not limit the liability of the shareholders.

These errors or fallacies that arise from a mistake of the question, either in regard to facts or doctrines, are not properly errors in reasoning, but rather errors in apprehension. For example: I am offered a bill for discount, and I reply, This bill can't be done, for it is drawn at six months' after-date. But on looking at the date, I observe it was dated three months ago, and it has now only three months to run; I then revoke my decision, and say it may be discounted. Here, then, was no error in reasoning; my reasoning was sound from the facts as I supposed them to be; but I was wrong in my conclusion because I was wrong in my facts. So, if I hear that a joint-stock bank has got into difficulties, I may hastily infer that great blame is attached to the manager; but if I afterwards learn that the manager had repeatedly warned the directors that the course they were pursuing would end in difficulty, but that his advice was disregarded, I then find I was wrong in my judgment, not from any error in my reasoning, but from want of information in regard to the facts.

Sometimes we mistake the nature of the question itself. When some writers wished to prove the expediency of esta-

blishing a sole bank of issue, they have attempted to prove that the Queen has the exclusive right to issue notes. This is a mistake of the question; for the point in dispute is not the constitutional right of the Queen, Lords, and Commons, to establish a government currency, but the wisdom and expediency of their doing so. So the clearing bankers thought it a sufficient reason for excluding the joint-stock banks for twenty years from the clearing-house, to say they had a right to exclude them. Many people have a legal right to do what it would not be just, wise, or expedient for them to do. In the application of general principles to particular cases, we sometimes confine ourselves to the discussion of the general principles about which there is no dispute, and omit the application to the particular case, which, in fact, is the only question at issue. A customer will charge his banker with want of liberality, and enlarge upon the propriety of bankers being liberal; but he will avoid mentioning the details of the transaction in which he alleges this want of liberality has been manifested, as that might condemn himself. Sometimes this fallacy is manifested by a mistake of the design or object of a measure. Thus, with reference to a surplus fund, it has been asked, "Has not the bank a large paid-up capital? It is not well established in public confidence; what, then, can it want with a surplus-fund?" Now, the design of a surplus-fund is not to increase the public confidence, but to equalize the dividend to the shareholders. These questions, therefore, were misdirected. But this mistake has led to farther erroneous reasoning. It has been contended, that the larger the capital, the less should be the surplus-fund; and the smaller the capital, the larger the fund. This would naturally follow the erroneous impression that the fund was designed to increase the public confidence. But if the fund be designed to meet occasional losses, then the larger the capital, the larger should be the fund; for with a large capital the transactions will be larger, and the amount of losses proportionably great.

Sometimes a person will manifest his mistake of the question by the answer he gives to it. For example: I ask if I may

safely advance money upon the debentures of a certain railway; I am told that the chairman of the board of directors is a most respectable man. This is not an answer to my question. A customer wishes to borrow money of me to enable him to engage in a new speculation, and when I ask for the particulars of the project, he assures me he has no intention to deceive me. I believe it; but that is not the question. I want to know, if the speculation should fail, how he will repay the loan.

Sometimes a mistake of the question is manifested by the mode in which it is discussed. A person may mistake his own inference from a question for the question itself. Thus, if I say, I think a system of joint-stock banks is better for a nation than a system of private banks, the party exclaims, Then you wish all the private banks to be suppressed! And he goes off into a train of reasoning to prove the evils that would result from a legal and immediate suppression of all the private banks. But in this case he has mistaken the question. He has been arguing against his own inference, not against the original proposition.

Another form of mistake is called *petitio principii*, or a begging of the question, and consists in assuming as true the thing in dispute. Thus: when writers attempt to prove that the currency ought to be regulated by the foreign exchanges, by stating that a paper-currency ought to be made to fluctuate in the same way as a metallic-currency would fluctuate, they are guilty of a *petitio principii*, for this is begging the question. The reason assigned involves the very question in dispute. Sometimes a *petitio principii* is denoted by a single word. Thus: we may be told that a banker ought not to *speculate* in the funds. Here it is assumed that an investment in the funds is a speculation. It is so when a banker intends merely to make a profit by an advance in the price. But when he invests in the funds, in order to have at all times available assets to meet the demands of his business, it is no speculation. So, a banker should not *lock up* his funds in railway debentures—it is assumed that an investment in railway debentures is a "lock up." A banker is said to

"lock up" his funds when he makes an advance upon inconvertible security; but when railway debentures are readily saleable in the market, they are not inconvertible, and the investment is not a "lock up."

We must endeavour to avoid these mistakes by careful definitions and correct analyses and classifications. We shall then be in a position to reason correctly from the "Principles of Reasoning" we have enumerated, and to which we shall more minutely refer in the following sections.

SECTION I.

THE RELATION OF SUBJECT AND ATTRIBUTE APPLIED TO BANKING.

There are two modes of reasoning from the relation of subject and attribute. In one, we have to show that a certain subject has a certain attribute. In the second, from the fact that a certain subject has a certain attribute, we draw an inference respecting either the subject or the attribute, or employ the assertion to prove another proposition. The following is an example of the first:—"This merchant is very speculative. This proposition may be doubted; and hence we should weigh in our mind the various circumstances which have induced us to arrive at this conclusion. The following proposition is an example of the second form of reasoning:—"As this merchant is very speculative, it would be imprudent in his banker to lend him any money." Here the relation of subject and attribute is assumed as established, and we have only to examine the soundness of the inference. The argument stands thus:—

It is imprudent in a banker to lend money to speculative merchants;

This merchant is very speculative:

Therefore it would be imprudent in his banker to lend him any money.

Sometimes a subject may have two attributes which may lead to opposite inferences. A banker is thinking of making an investment in Government securities. These securities have two attributes—one is safety, the other is fluctuation in price. The one inclines the banker to make the investment, the other makes him hesitate lest he should have to sell out when the price is low. It is possible that these Government securities may at the time have another attribute. They may yield a rate of interest either higher or lower than the rate that can be obtained on other investments; and this attribute, too, will enter into his reasonings, and either incline or disincline him to make the proposed investment.

The following are examples of inference from the connexion of the attribute with the subject:—This office is very dark; I must, therefore, get more light. The counter is very much crowded; I must, therefore, increase the number of cashiers. This bill is drawn on a wrong stamp; it, therefore, cannot be discounted. This customer is not punctual to his promises; I will, therefore, refuse to grant him the loan he desires. This clerk is very efficient; I will, therefore, increase his salary. That insolvent has acted fraudulently: I will not, therefore, sign his release. That town has a good trade; I think a bank would prosper there. All genuine bank-notes have a water-mark; this note has no water-mark: therefore, this is not a genuine bank-note. That bank has made no profits this year; therefore, this year that bank should pay no dividend.

In the illustrations I have given of this principle from my own writings, I have confined myself chiefly to exhibit the relation of subject and attribute, without applying it to any process of reasoning. In some cases, however, I have introduced the inferences to which it leads. I shall now notice these illustrations, and point out some of the reasonings and applications with which they may be associated.

1. *Attributes of a Banker.*—I have enumerated some of these attributes, and have hence inferred—that to be a good banker requires qualities as rare and as important as those

which are necessary to attain eminence in any other pursuit; and this inference is confirmed by the banks that have failed within the last fifty years. It is here presumed that these banks have failed chiefly from the bankers not possessing those attributes which would have prevented failure.

2. *Attributes of the London and Westminster Bank.*—When this bank was first established, there was no other joint-stock bank in London. The attributes enumerated, therefore, in the published prospectus were those in which it was presumed to have an advantage over the system of private banking. These were, the amount of its capital, the number of its partners, the declaration of secresy, the prohibition of Christmas-boxes, the taking of commission accounts, and the allowance of interest on deposits of both small and large amounts. Of course, the argument implied is, that a bank with these attributes is likely to confer greater advantages on the public than any bank which is without them; and a farther argument implied is, that a bank which confers all these additional advantages on the public, has a claim to public support. But besides these general inferences, there are specific inferences from each attribute.

From the amount of its capital it is inferred, first, that the bank presents the most perfect security to the public; and, secondly, that it has the most ample means for affording to its customers every reasonable accommodation.

One argument in its favour as a joint-stock bank is, that the customers of the bank, who are also shareholders, are able to participate in the profit made by their own account.

An argument in favour of commission accounts is, that they extend the advantage of a banking account to parties having moderate incomes, and to those who, in the course of their business, find ample employment for their capital.

An argument in favour of granting interest upon deposits of 10*l.* and upwards is, that it extends the benefits of the deposit system, as practised in Scotland, to all classes of the community in England.

An argument in favour of granting interest on large sums for short periods is, that it enables trustees and others who

have money they cannot immediately employ, to obtain an interest for it until an opportunity occurs for its permanent investment.

3. *Attributes of a Country Private Bank.*—The various attributes mentioned form a description of the business of a country bank. No inference is deduced. But we may infer, that banks having these attributes must greatly promote the advantage of the districts in which they are established; that great inconvenience would arise from any interruption of their operations; and that such interruptions are more likely to arise from the stoppage of the banks when the number of partners is limited to six, than if the number were more than six.

4. *Attributes of Bills of Exchange.*—The first paragraph is a definition of a bill of exchange. The second is a definition of some of the names applied to the parties to a bill. The last paragraph contains an enumeration of the arguments which a banker may discuss when deliberating whether he will discount a bill. If all these interrogatories can be answered satisfactorily, he will discount it; if none, he will not. But some may be answered satisfactorily, and others not. In this case, he will do as we have advised at page 36. He will balance the arguments against one another, and see which preponderate. It will be observed that the reasoning here is not mathematical, but moral reasoning. It has nothing to do with numbers or triangles, but with the acts of rational beings.

5. *Attributes of Cash Credits.*—The first paragraph contains a definition of a cash credit. The last gives a farther explanation, by comparing it with an overdrawn account. It is by comparing one thing with another that its peculiar attributes are more strikingly exhibited. Here is information without reasoning. No inference is drawn; but many inferences may be drawn, as we have shown in our "Practical Treatise on Banking."

6. *Attributes of a Speculation.*—This quotation was written in reply to the accusation: That banks of circulation have promoted a spirit of speculation. We have defined a specu-

lation to be—"a kind of traffic, in which the dealer expects to realize a profit, not by the ordinary course of trade, but by the intervention of some fortuitous circumstances that shall change the price of the commodity in which he deals." We have stated the circumstances by which the price of these commodities may be affected; and hence we have inferred that no system of banking can prevent speculation. We have farther stated, that speculation has existed in countries where no bank-notes circulate; that speculation existed in this country before the establishment of country banks; and that even now the chief seats of speculation are places where the local banks do not issue notes.

We have thus analysed the illustrations adduced from our own writings with reference to the relation of subject and attribute. If the reader will follow the same course, in regard to the illustrations of the other principles of reasoning, he will probably increase his knowledge of both logic and banking.

We will now notice a few of the erroneous modes of reasoning in connection with the relation of subject and attribute.

One kind of fallacy is, when the banker assigns to a subject an attribute that does not belong to it. For instance, he may consider a bill that he is about to discount has a good drawer or a good accepter, or that his customer, for whom he discounts it, is an honest and truth-speaking man—and in all these points he may be wrong. He may have thought that Spanish bonds were a good investment—that railway shares, with a margin of 25 per cent., were a safe security for a temporary loan—or that railway debentures would at all times be saleable in the money-market; and yet, in all these points, he may turn out to be mistaken. These errors are usually deductions from previous reasonings, and arise either from wrong information as to facts or some error in the reasoning process.

Another fallacy is called, by scholastic logicians, *fallacia accidentis*, or a sophism, wherein we pronounce concerning the nature and essential properties of any subject according to

something which is merely accidental to it (see page 33). So a banker may have purchased consols just before the French revolution of 1848, and have been compelled to sell out at a loss; and hence he may infer that all investments in the stocks are bad investments. He may have purchased exchequer bills in 1853, just before the Chancellor of the Exchequer reduced the interest to $1\frac{1}{2}$ per cent.; and hence he may have inferred that exchequer bills are not a proper security for a banker to hold. Or he may have discounted a bad bill on a corn merchant in 1847, and hence have determined that he would never again discount a bill on a corn merchant.

Another fallacy consists in arguing from what is true under particular circumstances, to prove it to be true absolutely, and under all circumstances. This is called by scholastic logicians, a sophism *a dicto secundum quid ad dictum simpliciter;* as if a banker should advance money upon a life policy, and the party should die suddenly and the banker get payment of his loan, and he should then contend that life policies are most excellent security. Some writers have observed that paper money, in some cases, has been injurious, and hence have inferred that all paper money is injurious. Some joint-stock banks have been badly managed, and have failed; hence, all joint-stock banks have been badly managed, and will fail. Importations of gold, as in the case of Spain, have been attended with national decline; hence, all large importations of gold are nationally injurious.

Another fallacy is to contend that, because two subjects have one common attribute, therefore they are the same thing. This fallacy is called, by scholastic logicians, an "undistributed middle," and may be illustrated thus:—

Gold is yellow;
Saffron is yellow:
Therefore, saffron is gold.

A transfer of a bank-deposit will discharge a debt;
A transfer of bank-notes will discharge a debt:
Therefore, bank-deposits are bank-notes.

Goods may be purchased with capital;
Goods may be purchased by credit:
Therefore, credit is capital.

But though gold and saffron agree in being yellow, they do not agree in other respects. Though bank-deposits and bank-notes will both discharge debts, they have other attributes; and though goods may be purchased, either with credit or capital, they have each peculiar functions. Notwithstanding their agreement in one attribute, saffron is not gold, deposits are not notes, and credit is not capital.

There is another fallacy—the reverse of this—which is called, by scholastic logicians, "an illicit process,"—that is, when, because two things are not the same thing, we infer they have not a common attribute. The following are examples of this fallacy:—

Gold is yellow;
Saffron is not gold:
Therefore, saffron is not yellow.

Bank-notes will discharge a debt;
Bank-deposits are not bank-notes:
Therefore, bank-deposits will not discharge a debt.

Capital will purchase goods;
Credit is not capital:
Therefore, credit will not purchase goods.

Every branch of trade ought to be free;
The issuing of bank-notes is not a branch of trade:
Therefore, the issuing of bank-notes ought not to be free.

Another mode of erroneous reasoning from the relation of subject and attribute is, when we pronounce judgment upon a subject from a consideration of only one of its attributes. Thus: there are some transactions that can be effected more promptly and secretly with a private banker than with a board of directors; therefore, the system of private banking is better than the system of joint-stock banking. That banker is very courteous in his manners; therefore, he is an excel-

lent banker. That clerk writes a fine hand; therefore, he is a very good clerk. A contrary error is, when we pronounce a judgment upon the character of an attribute according to the subject with which it is connected. Some excellent bankers have made large advances upon bills of lading; therefore, to make advances upon bills of lading is good banking. Some eminent joint-stock banks have a small paid-up capital in proportion to their liabilities; therefore, to have a small paid-up capital is a wise principle to adopt. That manager has been a successful banker; therefore, the book he has published on banking must be a good book. That statesman has great talents; therefore, his opinions on the currency are all sound.

SECTION II.

THE RELATION OF A WHOLE AND ITS PARTS APPLIED TO BANKING.

We have, at page 39, viewed this relation in regard to arithmetical numbers, physical substances, and moral ideas. We shall observe the same order here.

Those ideas which refer to a whole, in reference to its parts, are called, by some logicians, complex or compound ideas, while the parts are called simple ideas. But though these ideas may be called simple as regards the whole of which they form a part, they are, in most cases, themselves compounded of other ideas. Thus, the number 25 is a part of the number 100 which is thus regarded as a whole. But the number 25 consists of twenty-five units, and each of these units is composed of fractions. So a bank-building is a complex idea, and the building may be divided into a number of rooms or offices, which form its parts; and each office may again be divided into compartments, applied respectively to different kinds of operations. So our idea of a good manager is a complex or compound idea. It includes the ideas of knowledge, wisdom, experience, habits of business, promptness

of judgment, talents for administration, moral character, &c.; but each of these ideas is compounded of a number of subordinate ideas—subordinate, we mean, when considered as parts of a whole.

The four operations of arithmetic may be regarded as reasonings from the relation of a whole and its parts. In addition we put together two or more parts in order to ascertain the whole. In subtraction we take a part from the whole to ascertain the amount of the remaining part. In multiplication we ascertain the whole that would be made by any given number of equal parts. And by division we ascertain how many equal parts of any given amount are contained in a given whole.

The whole most in use with bankers is the number 100; for all calculations of interest are made at a certain rate *per cent.* Now, if the amount of a bill of exchange be less than 100, then it contains so many parts of 100; and if it be more than 100, then 100 is a part of that whole. So, if the discount of a bill of 100*l.* be 5*l.*, then the amount will be more or less than 5*l.* in proportion as the amount may be more or less than 100*l.* But the rate of interest is at a certain rate per cent. *per annum.* Here is a new relation introduced between a whole and its parts. But few bills are drawn for so long a period as a year. And if the discount on a bill of 100*l.* for one year be 5*l.*, then the discount on the same bill for a less period will be a less sum, and will bear the same proportion to 5*l.* which the number of days the bill has to run bears to 365,—the number of days in the year.

Bankers' clerks have seldom any occasion to calculate the discount of bills, as they can more readily make use of an interest-book, where all the calculations can easily be found. The operation they most frequently perform is addition. This appears to be the most easy; and yet it is found that but few young men, when they apply for admission into a bank, can quickly and correctly cast up a long column of figures. It would be well if schoolmasters more frequently exercised their scholars in operations of this kind.

The relation of a whole and its parts with regard to num-

bers frequently engages the attention of a banker. When a joint-stock bank is formed, its capital is divided into parts, called shares; and the whole capital will consist of the amount of each share multiplied by the number of shares. By the Act of 1844 no bank can have a less capital than 100,000*l.*, and no share can be less than 100*l.*, of which half must be paid up before the commencement of business. The calling up of more capital on each share, the increase of the capital by the issue of new shares, and the periods at which the instalments should be paid, are topics that in the early stages of a bank frequently occupy the attention of directors. It is also considered what part or proportion of the preliminary expenses should be written off every year. When the profits are made, it is a matter of consideration what part should be paid to the shareholders as dividend, what part as bonus, and what part should be added to the surplus-fund.

It is also often a matter of discussion what part or proportion of the funds of the bank should be invested in Government or other securities, so as at the same time to be most secure, most productive, and most available.

Prosperity sometimes brings its perplexities; for then is to be decided what part or proportion of this prosperity should be assigned to the officers of the establishment. When managers or other principal officers are engaged, it is usual to have an agreement or understanding that their salaries shall increase as the bank may prosper; but the subsequent adjustment of the ratio, when prosperity is attained, is not always easily effected so as to please all the parties concerned. Sometimes there is an agreement with the manager that the increase shall be regulated by the rate of the dividend; and, in most cases, there is a scale for regulating the salaries of the clerks. But even then it is usual in prosperous years to make presents, or give them bonuses on their salaries. At these seasons of prosperity, too, the shareholders usually consider what increase should be made to the salaries of the directors.

There are other considerations connected with the relation of a whole and its parts which are not so agreeable. In case of a dishonoured bill, it is sometimes doubtful what part may

be recovered and what part may be lost, and whether, by proving the debts against all the parties to the bill, all the dividends put together will make up the whole sum. In examining the balance-sheet of a customer who has failed, the banker will notice the liabilities and the assets, and what proportion they bear to each other; and hence he will calculate how much in the pound he will get for the amount of his debt.

A dividend is a sum to be divided, and it usually bears a certain proportion or rate per cent. to the capital. But some banks declare a dividend (or a bonus) of so much per share instead of so much per cent., and the question arises what is the rate per cent. of the dividend for the capital? Thus, if a bank pays 7*s.* per share when the paid-up capital is 10*l.* per share, what per cent. is the rate of the dividend? Here the best way is to multiply the paid-up capital per share by a number that shall produce 100, and then multiply the dividend by the same number. This will show the rate per cent. Thus, in the above case, 10 multiplied by 10 will produce 100; then 7*s.* multiplied by 10 will produce 70*s.*; thus the rate is $3\frac{1}{2}$ per cent. We may reverse this problem and ask, if a bank pays a dividend of $3\frac{1}{2}$ per cent., how much is that per share upon a paid-up share of 10*l.*? Here we observe that 10*l.* is one-tenth of 100*l.*, and we divide 3*l.* 10*s.*—that is 70*s.*—by 10, and this gives us 7*s.* per share.

Not making a distinction between a whole and a part often leads to obscure conceptions and erroneous reasonings in regard to matters connected with banking. We recollect reading a charge against a joint-stock bank in somewhat like the following terms:—"This bank gives 5 per cent. interest on its deposits, and invests them in Government securities, which yield $3\frac{1}{2}$ per cent., and pays its shareholders a dividend of 10 per cent. out of the profits. We should like to know how this is done." The facts stated were all correct. The fallacy lay in putting a part for the whole. It is clear that if the bank paid 5 per cent. on *the whole* of its funds, and invested the whole at $3\frac{1}{2}$ per cent., there could be no profits, but a loss of $1\frac{1}{2}$ per cent. But the bank in question gave 5

per cent. on only *a part* of its deposits; on *another part* it paid less than 5 per cent., and on its current accounts it gave no interest at all. On the other hand, *a part* only of its funds was invested at $3\frac{1}{2}$ per cent., and *another part* was employed at 6 per cent. In such a case, therefore, a bank with a large amount of deposits might easily pay to its shareholders a dividend of 10 per cent. on its capital. For though the facts stated in the accusation are true with regard to *parts* of its funds, it would have been equally true to say, in regard to other parts, the bank borrows money for which it gives no interest, and employs it at 6 per cent., and pays *upon its capital* a 10 per cent. dividend.

Statements like the above are not confined to the accusers of joint-stock banks. They are sometimes made by joint-stock bankers themselves when considering the rate of interest to be given to depositors. "Here we are giving 5 per cent. for our money, and investing it at $3\frac{1}{2}$ per cent. How shall we be able to pay a dividend to our shareholders?" Here the same reply is applicable—a part is taken for the whole.

The profits of a bank are divisible into parts. The gross profits are made by the capital, by the surplus-fund (or Rest as it is called), and by the money placed in the bank by its customers. But we often hear of "the profits on the capital," as though all the profits were made by the capital. This has led to some erroneous impressions. It is fancied that the surplus-fund is held for the good of future shareholders, whereas the profits of the surplus-fund are annually divided among the existing shareholders. Were the surplus-fund itself to be thus distributed, the shareholders could but employ it, and the bank does that for them.

The price of a bank-share in the market consists of parts. It is the price of a share of the capital and of a share of the surplus-fund. If a bank were to abolish its surplus-fund, the price of its shares would of course fall, as the bank would, in future years, have less profits to divide. If the Bank of England were to distribute its three millions of Rest, the dividends would be reduced, and the price of bank-stock would of course fall.

We have stated (page 39), that arithmetical numbers and physical substances are more readily and completely divided into parts than those subjects or attributes which we call moral. Nearly all these ideas are complex, that is, they include several other ideas. But as we cannot so easily divide a complex idea into all its parts, and it is not always necessary that we should do so, we use the words imply or include. When we merely mean to say that one idea forms a part of another, and we have no occasion to enumerate all the other parts, we may say that the idea of which we speak is *included* in the whole idea of which it is a part. Thus, our idea of an honest man includes or implies the idea that when he buys goods he intends to pay for them. Our idea of a man of veracity implies that when he brings bills for discount to his banker, and states that they are drawn against value, the banker may depend upon his word. Our idea of a good banker implies that he has a correct judgment of those occasions in which he ought to be liberal, and of those in which he ought to be cautious. Our idea of a good banker's clerk implies that he writes a good hand, that he is correct in accounts, that he is quick in performing his operations, that he can readily pass from one employment to another, and can analyse his accounts, and clearly exhibit a full statement of any account that may be required of him. A complete idea would also include certain moral ideas, as punctuality of attendance in the morning, application, perseverance, prompt obedience to the instructions of his superiors, and propriety of conduct towards all his colleagues and the public. Some times our reasonings are erroneous from omitting some ideas which are parts of the whole. The idea of a shareholder in a joint-stock bank, in the minds of some persons, includes the idea of a man who gets shares at par, goes every half year to receive his dividends and bonuses, and attends the general meeting of shareholders for the purpose of censuring the directors and managers for not making larger profits; but it does not include the idea of keeping his own account at the bank, or the doing of anything towards making those profits he is so anxious to receive. Shareholders are not sufficiently

impressed with the idea that by being also customers they increase the profits of the bank. They seem to forget that the whole is made up of parts, and that every part, however small, contributes to the whole. While, in the examination of a complex idea, we endeavour to ascertain what are the simple ideas which are implied or included in it, we should at the same time notice what are the simple ideas which are excluded from it. Thus, if I examine a piece of gold from Australia, and I find that it consists of five parts of pure gold and one part of alloy, then I say this is not standard gold. The standard gold from which our sovereigns are coined consists of eleven parts of pure gold and one part of alloy. The presence, therefore, of a larger proportion of alloy in the gold before me shows that it is not standard gold. So in regard to moral ideas. We sometimes include in our idea of the whole more than all its parts. Thus, a short time ago, some of our public writers always included inefficient managers and fraudulent directors in the idea of a joint-stock bank, and they very naturally wrote vehemently against all such banks. At the present time the idea of a London joint-stock bank includes, in the minds of some people, the ideas of high dividends and large bonuses; whereas in Scotland, where the system has most flourished, the banks have never paid high dividends.

We may thus observe that we may adopt three modes of erroneous reasoning from the relation of a whole and its parts. We may take a part, and reason from it as though it were the whole. We may exclude from the whole some important idea that should be included in it, or we may include in the whole some idea that ought to be excluded. As an error of the first kind we may refer to a London joint-stock bank, that announces that it conducts its business upon the "Scotch system of banking," by which it means merely that it grants cash credits. Now, the granting of cash credits is only one part of the business of banking in Scotland. And were any party to infer from the above advertisement that the bank in question resembled the Scotch banks in every other particular, or that the other joint-stock banks in London did in no respect re-

semble the joint-stock banks in Scotland, he might arrive at erroneous conclusions. So one of the joint-stock banks in London calls itself "*The* London Joint-Stock Bank." If any one were to infer from this title that this bank is the only joint-stock bank in London, or that it was the first established in the order of time, he would be led into an erroneous conclusion.

The second fallacy is that of excluding or omitting from a complex or compound idea some idea which ought to be included. Several private bankers stated to the Parliamentary Committee of 1832 that a joint-stock bank could not be so well managed as a private bank, because the directors, who had businesses of their own, could not pay so much attention to their bank as a private banker who devoted his whole time to the business. Now, the administration of a joint-stock bank includes not only a board of directors but also a manager, whose whole time is as constantly devoted to the business as that of a private banker. But the above witnesses omitted this very important idea from the idea of bank-management, and hence arrived at apparently very natural, but at the same time very erroneous conclusions.

A third error is adding to the complex idea some idea which does not belong to it. All the joint-stock banks formed since the year 1844 are compelled to take charters from the crown. A London bank placed at the head of its prospectus the words, "Empowered by Royal Charter." A public writer commenting upon some proceedings of this bank, stated that it had a charter which limited the liability of the shareholders. He included in the idea of charter an idea not necessarily connected with any charter, and which is expressly excluded by the Act of Parliament passed with reference to the joint-stock banks formed since the year 1844. His reasonings, therefore, so far as they rested on this assumption, were built on a sandy foundation.

We may supply ourselves with a further illustration of the fallacy of confounding a part with the whole by noticing the collective and the individual functions of a board of directors.

We may observe, first, that every part has not the attri-

butes of the whole. It is not necessary, nor perhaps possible, that every one of the directors should possess all the qualifications of the whole board. It is desirable that a board should be wealthy, honourable, business-like, influential, and have administrative talents; but it is not necessary that every one of the directors should possess all these qualifications. It is necessary only that the board should possess all these qualifications as a whole. One director may be wealthy; another may have business talents; another may have an extensive acquaintance with commercial men, so as to be able to get useful information for the manager; another may have a knowledge of finance, and give good advice as to the employment of the bank's funds; another may be influential, and thus bring new connexions to the bank; another may possess discrimination of character, so as to excel in the appointment of managers and clerks; another may have a knowledge of the forms of discussion, with the talent of speaking, and thus make an excellent chairman. It may be found, too, that the temperaments and the moral qualities of directors are as different as their intellectual attainments and pursuits. Some may be cautious, and others speculative; some may be economical, and others liberal; some may be discreet, and others imprudent; some may be passionate, and others mild; some may argue logically, and others the reverse; some may exact from the officers of the bank great marks of respect and obsequiousness, and others may treat all with kindness and affability. It is a conceivable case that a bank may have a good board of directors without having a single good director, as the imperfections of one director may in the board be counteracted by the opposite imperfections of another. It is also conceivable that the members of a board may individually be most efficient directors, and yet from not working well together may be very incompetent as a board. But boards so constituted, if they can exist at all, are not likely to be of long continuance.

We may observe, secondly, that every part is included in the whole. No individual director can detach himself from the responsibility that belongs to the whole body. If the

bank has been in the habit of cooking the accounts, the directors cannot exonerate themselves personally by throwing all the blame on the chairman. Nor can any director plead as an excuse that he never attended the meetings of the board. As a director, it was his duty to attend, and to take his share of the duties and responsibilities of the board, and not to give the sanction of his name to proceedings that he knew nothing about. The directors of a public company lent its funds to themselves—all were culprits except one. He stated that though he had consented to be a director, he had never attended. The shareholders replied, that he had then been the cause of all the evil, for, as he was known to be an honourable man, had he attended in his place as a director, the other directors would never have dared to propose in his presence the dishonourable proceedings they had adopted. It should be remembered that responsibility is not only an essential attribute of the whole board, but also of every member of the board.

We may observe, thirdly, that a part is not the whole. A director is not the board. A director has not the authority of the board. He can neither appoint nor dismiss any officer of the bank. The bank officers are the servants of the board, as a whole, and not the servants of any individual director. Nor can he open or close an account, or make an arrangement with a customer, or transact any business with him, without the authority of the board. Except in special cases, the board do not give this power to a director. They usually assign these duties to the manager. And when an individual director is applied to by a customer, upon any business of the bank, he introduces him or refers him to the manager. As a director is not the board, the manager has no right to shift from himself upon an individual director the blame or responsibility of an unwise transaction (such, for example, as the discounting of a bad bill) because he had previously asked the opinion of that director. It is often proper that a manager should ask the advice of a director upon any subject on which he may have peculiar means of information; but no director in giving such advice, supposes he has taken

the place of the manager, and released the manager from all further responsibility. As the director had no individual authority, he had no individual responsibility. If the opinion of the director was different from the opinion of the manager, then the manager ought not to have followed it. And if the opinion of the director was the same as that of the manager, then it was the manager's own opinion, and he is as much responsible for it as if he had never consulted the director.

The decision of any regularly-convened meeting of the board is the decision of the whole, although a majority of the directors then present, and who voted for the resolution, form a minority of the whole board. But any future meeting of the board may at any time reverse the decision. To prevent such an undesirable proceeding, it is usual to summon all the members of the board when any very important question is coming on for discussion: such as the choice of a manager, the recommendation of a new director, the increase of the capital, the opening of a new branch, or the adoption of the annual report. In these and similar cases it is always desirable that the decision of the board should express the individual opinions of a majority, and, if possible, of a large majority of the members. It is also advisable that in all cases, which are not matters of routine, notice should be given by a member of his intention to bring forward any measure for the consideration of the board. Without this precaution, it is possible that the board may suddenly adopt resolutions which the majority, if present, would disapprove.

The maxim, that a part is not the whole, will apply as much to shareholders as to directors. A shareholder is not the bank. The directors are not answerable for their conduct to any individual shareholder, but only to the shareholders as a whole. No shareholder has a right to ask for information as to the state of any party's account, or as to the investments or transactions of the bank, or as to the future amount of the dividend. Nor, if he be a customer, has he a right to expect that more deference or respect would be paid to him, or that he must receive accommodation on more favourable terms than if he were not a share-

holder. Nor has he a right to admonish or censure any of the officers of the bank in case he observes anything that he disapproves. He has only the same right which he would have, were he not a shareholder, of pointing out to the manager, in a friendly way, the defects of which he complains, and of suggesting any steps by which the prosperity of the bank might be promoted. But at the general meeting of shareholders an individual may ask any questions or propose any motion he thinks proper; and the shareholders, as a whole, may accept or reject any proposal submitted to them either by a shareholder or by the board of directors. The extent of their power in this respect is usually specified in the deed of settlement.

SECTION III.

THE RELATION OF GENUS AND SPECIES APPLIED TO BANKING.

THIS relation, we have stated, denotes the idea of classification. In the illustrations we have given from our own writings, we have referred to classes of public companies, classes of banks, classes of accounts, classes of bills of exchange, classes of loans, classes of circulation, classes of persons to whom books on banking are useful; and we have referred to the application of general principles, which is merely showing that a certain individual case is included in a certain class.

We have stated, at page 49, that the word "genus" denotes a large class; the word "species" denotes a smaller class, included in the large class; and the mode of reasoning from the relation of genus and species is merely showing that a certain species is properly classed under a certain genus, and then to affirm or deny of the species what we had previously affirmed or denied of the genus. This kind of reasoning can be very readily exhibited by the means of

syllogism. We shall, therefore, state some of the rules of class reasoning, and exemplify them in a syllogistic form.

RULE I.—Whatever is affirmed of a class may be affirmed of all the members of that class.

A large class may consist of a number of smaller classes, or of parts of other classes, or of individuals. In either case the rule will apply.

All advances on inconvertible security should be avoided;
All advances on mortgage are *advances on inconvertible security:*
Therefore, all advances on mortgage should be avoided.

Whatever creates an additional demand for commodities tends to advance their prices;
Some issues of bank-notes *create an additional demand for commodities:*
Therefore, some issues of bank-notes tend to advance the prices of commodities.

All who are the founders of a successful banking institution render good service to their country;
Mr. James Paterson was the *founder of a successful banking institution:*
Therefore, Mr. James Paterson rendered good service to his country.

The reader will observe that in the first of the above syllogisms, "All advances on inconvertible security" is the large class or genus, and "advances on mortgage" are a smaller class or species of the larger class; "should be avoided" is the attribute asserted to belong to the larger class, and which, therefore, according to the rule, may be asserted of the smaller class.

In the second syllogism, "Whatever creates an additional demand for commodities" is the class or genus; "Some issues of bank-notes" is the species contained in that genus; and then what is asserted of the class is asserted of the members of the class,—"they tend to advance the prices of commodities."

In the third syllogism the class is, "All who are founders of a successful banking institution," and Mr. James Paterson being a member of that class, what is asserted of the class is asserted of him,—"he rendered good service to his country."

It is by no means necessary that these arguments should be placed in the form of syllogism, or even of class reasoning. We may say:—All advances on mortgage should be avoided, because the security is inconvertible.—Some issues of bank-notes tend to advance the prices of commodities by creating an additional demand.—Mr. James Paterson rendered good service to his country by founding a successful banking institution.

Rule II.—Whatever is denied of a class may be denied of all the members of that class.

No bills of exchange that circulate in England are exempt from stamp-duty;

Foreign bills of exchange *circulate in England:*

Therefore, foreign bills of exchange are not exempt from stamp-duty.

No *branch bank has been withdrawn* when it was successful;

Some branches of the Bank of England *have been withdrawn:*

Therefore, some branches of the Bank of England have not been successful.

No joint-stock bank that does not issue notes in England is excluded from carrying on business in London;

The National Bank *does not issue notes in England:*

Therefore, the National Bank is not excluded from carrying on business in London.

The reader will observe that in the first of the above syllogisms the class is, "Bills of exchange that circulate in England;" a portion of that class is "foreign bills of exchange;" and then what is denied of the genus is denied of the species.

In the second syllogism the class is, "Branch banks that have been withdrawn;" "some branches of the Bank of England" are a portion of that class; and then what is denied of the class is denied of the species.

In the third syllogism, "Joint-stock banks that do not issue notes in England," is the class; the "National Bank of Ireland" is a member of that class; and then what is denied of the class is denied of the individual member of the class.

The reasoning might, as in the former cases, be expressed otherwise than by syllogism. We might say:—Foreign bills are not exempt from stamp-duty, as they circulate in England.—Some branches of the Bank of England have been withdrawn, because they were not successful.—The National Bank of Ireland is not excluded from carrying on business in London, for it does not issue notes in England.

Rule III.—Whenever the whole of a class possess a certain attribute, whatever does not possess that attribute does not belong to the class.

All legitimate bills are *drawn against value received;*
No kite or accommodation bill is *drawn against value received:*
Therefore, no kite or accommodation bill is a legitimate bill.

All the clearing bankers *reside in the city of London;*
Some London bankers do not *reside in the city of London:*
Therefore, some London bankers are not clearing bankers.

In the first syllogism the class is, "All legitimate bills;" and this class possesses the attribute of "being drawn against value;" and as "kites or accommodation bills" do not possess this attribute, they do not belong to the class.

In the second syllogism the class is, "All clearing bankers," who have the attribute of residence in the city; and as some London bankers have not this attribute, they do not belong to this class.

These syllogisms may be thus expressed:—No kite is a

legitimate bill, for it is not drawn against value. Some London bankers are not clearing bankers, which is shown by their not residing in the city, where all the clearing bankers do in fact (though not necessarily) reside.

Rule IV.—Whenever the whole of a class is excluded from the possession of an attribute, whatever possesses that attribute does not belong to the class.

No joint-stock bank *has so few as six partners;*
Every private bank has as *few as six partners:*
Therefore, no private bank is a joint-stock bank.

Here the class is, "joint-stock banks," to which is denied the attribute of having so few as six partners; and as all private banks possess this attribute, they do not belong to the class.

No well-managed bank *has ever stopped payment;*
Some joint-stock banks *have stopped payment:*
Therefore, some joint-stock banks have not been well managed.

Here "well-managed banks" is the class; and the attribute denied to them, "stopped payment; and as some joint-stock banks have had this attribute, they did not belong to the class.

Without the syllogism these arguments may be thus expressed:—No private bank is a joint-stock bank, for it has not more than six partners.—Some joint-stock banks have not been well managed, which is proved by their having stopped payment.

Rule V.—When the whole of a class possess a certain attribute, and the whole or part of the class possess another attribute, then some things that possess one of these attributes possess the other also.

All joint-stock banks are founded on sound principles;
All joint-stock banks require prudent management to insure success:
Therefore, some banks founded on sound principles require also prudent management to insure success.

Some London joint-stock banks were established with great difficulty;

All the London joint-stock banks have been useful to the public:

Therefore, some banks useful to the public were established with great difficulty.

All advances to speculative parties are attended with great risk;

Some advances to speculative parties are ultimately paid:

Therefore, some advances attended with great risk are ultimately paid.

In the first syllogism the class is, "All joint-stock banks;" and as all these banks are founded on sound principles, and all require prudent management to insure success, the conclusion follows that some banks which are founded on sound principles, require also prudent management to insure success.

In the second syllogism the class is, "The London joint-stock banks;" and as some of these were established with difficulty, and all have been useful to the public, we infer that some banks established with difficulty have been useful to the public.

In the third syllogism the class is, "Advances to speculative parties;" and as all these advances are always attended with great risk, but are sometimes paid, we infer that advances attended with risk are sometimes paid.

We might state these arguments in the following forms:—Some banks founded on sound principles require also prudent management to insure success; such, for example, is the case with joint-stock banks.—Some banks useful to the public have been established with great difficulty; take, for example, some of the London joint-stock banks.—Some advances attended with great risk are ultimately paid; such is sometimes the case with advances made to speculative parties.

Rule VI.—When the whole of a class is excluded from the possession of a certain attribute, and the whole or part

of the class possess another attribute, then some things that possess one of these attributes do not possess the other.

No joint-stock bank will occasion any loss to its depositors;
All joint-stock banks are liable to make large bad debts:
Therefore, some banks that are liable to large bad debts will not occasion any loss to their depositors.

Some bankers are not wealthy;
All bankers keep up the appearance of wealth:
Therefore, some people who keep up the appearance of wealth are not wealthy.

No well-governed bank pays excessive dividends to its shareholders;
Some well-governed banks make large profits:
Therefore, some banks that make large profits do not pay excessive dividends to their shareholders.

Here the classes are respectively, "joint-stock banks"—"bankers"—"well-governed banks."

These arguments may be stated in the following form:—Some banks that are liable to make large bad debts will not occasion any loss to their depositors: for example, the joint-stock banks.—Some people that are not wealthy keep up the appearance of wealth: such is the case with some bankers.—Some banks that make large profits do not pay excessive dividends to their shareholders: this is the case with some banks that are well managed.

REMARKS ON THE RULES.

1. The reader will observe that these six rules are in couples which correspond with the three *figures*, as they are called in scholastic logic. Under the first and second rules, the middle term is the subject of the first proposition, and the predicate of the second. Under the third and fourth rules, the middle term is the predicate of both the premises. Under the fifth and sixth rules, the middle term is the subject of both the premises. Here, as elsewhere, we have put the middle term in italics. He may also observe that the

examples of syllogism given under these rules exemplify the different *modes*, as they are called, or arrangements of propositions under the different figures. I have not thought proper to trouble the reader with the barbarous names given to these arrangements.

2. The first and second of these rules differ only in the circumstance that one is affirmative and the other negative. They exhibit most clearly the nature of class reasoning, and the relation of genus and species. Arguments founded upon other principles of reasoning may be brought under these rules by changing the form of expression. For example, arguments founded upon the relation of subject and attribute may, by a change of form, be classed under the relation of genus and species. Thus we may say:—This bill is a good bill, for *it has a good accepter;* or, by changing the attribute into a class, we may say:—

All bills that have good accepters are good bills;
This bill has *a good accepter:*
Therefore, this bill is a good bill.

So also the relation of cause and effect may be placed under the relation of genus and species; whether the cause be physical, moral, conditional, or final. Here we change the *effect* into a class, and it becomes the middle term of the syllogism:—

Every measure that promotes the health of the clerks ought to receive attention;
The proper ventilation of the office *promotes the health of the clerks:*
Therefore, the proper ventilation of the office ought to receive attention.

All institutions that tend to insure punctuality in pecuniary engagements ought to be encouraged;
Banking institutions *tend to insure punctuality in pecuniary engagements:*
Therefore, banking institutions ought to be encouraged.

Bills drawn for speculative purposes will not be paid unless the speculation succeed;

This bill is *drawn for speculative purposes:*

Therefore, this bill will not be paid unless the speculation succeed.

Further advances made by a banker to a customer, in order to secure payment of a previous debt, often increase the ultimate loss;

The advance now proposed is *one of that description:*

Therefore, the proposed advance will probably increase the ultimate loss.

Under these first and second rules we also place those arguments that involve the application of a general rule to a particular case. Example:—

To advance money on bills of lading is contrary to the rules of the bank;

The present application is for an *advance of money on bills of lading:*

Therefore, the present application is contrary to the rules of the bank.

3. Under the third and fourth rules the conclusions are all negative. But under the third rule a certain attribute is affirmed to belong to the class, and under the fourth rule the attribute is denied to the class. Hence, under the third rule, the major proposition of the syllogism is affirmative and the minor negative; while under the fourth rule, the major proposition is negative and the minor affirmative. In both cases the conclusion is negative. Whenever either the major or the minor proposition is negative, the conclusion will be negative. These rules are substantially the same as that given at page 32, in relation to subject and attribute:—"If the same attribute can be ascribed to one specified subject, and not to another, then we may infer that these two subjects are different from each other." Thus, in the examples under the above rules, we prove that kites are different from legitimate bills—that some London bankers are not clearing bankers—that private banks are different from joint-stock banks—and that some joint-stock banks are not well-managed banks; and

these propositions are proved respectively because one subject has an attribute which the other has not.

It will thus appear that these third and fourth rules will apply to other reasoning besides class reasoning. Both these rules may be embodied in one maxim :—"Whenever the subject and the predicate of a proposition will not agree with a third term, they will not agree with each other." Observe; when two terms are said to "agree," it means that when put together they form an *affirmative* proposition, as :—

All legitimate bills *are* drawn against value.

When two terms are said "not to agree," it means, that when put together they form a *negative* proposition, as :—

An accommodation bill *is not* drawn against value.

And as these two terms, "legitimate bills" and "accommodation bills," do not both agree with the third or "middle term," we infer that they do not agree with each other; and, accordingly, we say :—

An accommodation bill is *not* a legitimate bill.

The following are further illustrations of the above maxim :—

An honest man will not engage in an enterprise, the profits of which, if successful, will go to himself, and the losses, if unsuccessful, will fall upon his creditors;

Every speculative merchant engages in enterprises of this description:

Therefore, a speculative merchant is not an honest man.

A sickly young man should not engage in a laborious employment;

The office of a banker's clerk is a laborious employment:

Therefore, a sickly young man should not become a banker's clerk.

4. The fifth and sixth rules differ only in the former being affirmative and the other negative. In the former case the major and the minor propositions are affirmative, and the conclusion, of course, is affirmative. In the latter case the

major proposition is negative, and this makes the conclusion negative. Under both rules the conclusion is *particular*. It refers only to part of a class. This is denoted by the word SOME. These rules are substantially the same as that given at page 31, under the head of subject and attribute:—"If any two attributes may be ascribed to the same subject, then we may infer that these attributes are not inconsistent with each other." Thus, in the first and the last of the illustrations of the above rules, we say, it is not incompatible for banks to be founded on sound principles, and yet to require prudent management; nor for banks to make large profits, and yet not to pay excessive dividends.

Although these rules are placed under the head of "Class Reasoning," the reasoning would be the same in case the attributes were ascribed to an individual. Thus:—

The Bank of England enforce a strict discipline on their clerks;

The Bank of England give liberal salaries to their clerks:

Therefore, strict discipline is not inconsistent with granting liberal salaries.

It will also be seen, from the summaries given at page 293, that the arguments under these rules may be expressed in the form of examples; and perhaps this is their more natural mode of expression:—

Lord Overstone was an eminent practical banker:

Lord Overstone was an eminent writer on banking.

Under the fifth rule of class reasoning, the conclusion would be:—Therefore, some eminent practical banker is an eminent writer on banking. Under the rule in reference to subject and attribute, the conclusion would be:—Therefore, to be an eminent practical banker, and to be an eminent writer on banking, are not incompatible with each other. In the form of example, we should express the argument in this way:—It is quite possible for a man to be eminent both as a practical banker and as a writer on banking; witness Lord Overstone.

5. Class reasoning is very easy reasoning. The syllogisms

under the first and second rules, especially, are exceedingly obvious. Dr. Whately thinks that the justice of the conclusion may be perceived by those persons even who do not understand the meaning of the words. But though our conclusions may be correct deductions from the premises, they may not be true if the premises are not true; or the premises may be erroneously or obscurely expressed, so as to lead to confusion in the mind of the reasoner. The object of syllogism is not to teach us how to reason, nor to give increased force to our reasoning, but to place our argument in a clearer light; so that the justice of our reasonings may be more readily perceived both by others and ourselves. In constructing our syllogism, we must have a care that the same words are employed in both the premises and in the conclusion, and that these words are used in the same sense. The following violation of the first of these rules occurs in the 'Port Royal Logic,' translated by Mr. Baynes:—

"Whoever suffers those whom he ought to support to die of hunger, is a *murderer;*

"All the rich who do not give alms in time of public necessity, suffer those to die of hunger whom they ought to support:

"Therefore, they are *homicides.*"

Here the word *murderer* is used in the major premiss, and *homicide* in the conclusion. These words are not only different, but they have different meanings. Every murderer is a homicide; but every homicide is not a murderer. A coroner's inquest sometimes returns a verdict of "Justifiable homicide;" but there can be no justifiable murder.

In the following syllogism the words are the same, but the meaning is different, and the conclusion is not true:—

Whenever the *circulation of the Bank of England* increases, her stock of gold increases;

The payment of the public dividends increases the *circulation of the Bank of England:*

Therefore, the payment of the public dividends increases her stock of gold.

Whenever a conclusion is legitimately drawn from premises, both of which are true, the conclusion must be true. A conclusion not legitimately derived from the premises may be either true or false in itself, but it is not proved to be true by the syllogism. The argument proves nothing. If a conclusion be legitimate, and yet not true, it proves that one or both of the premises must be untrue. In syllogistic reasoning, we most frequently reason correctly from the premises before us, as we understand them; and our incorrect conclusions, when they occur, usually arise from some error or misconception in regard to the premises. We shall notice a few cases of this kind.

ERRORS IN REASONING, FROM THE RELATION OF GENUS AND SPECIES, OR CLASS REASONING.

1. The first error arises from not regarding the kind or degree of universality denoted in the class,

In some universal propositions the subject is to be understood in only a collective sense, as—All these sovereigns amount to a thousand. Others in a distributive sense, as—All these sovereigns are full weight; where we refer to every sovereign individually as well as collectively. Hence the following syllogism is a fallacy:—

All the London joint-stock banks have 36,000,000*l.* in deposits;

The London and Westminster Bank is a London joint-stock bank:

Therefore, the London and Westminster Bank has 36,000,000*l.* in deposits.

Some propositions have a mathematical, and some only a moral universality. The mathematical universality admits of no exceptions, as—All bank directors must hold the number of shares required by the Deed of Settlement—No shareholder can transfer his shares without the consent of the directors. The moral universality, although generally true, admits of exceptions, as—All bank directors are wise and honourable men—All banks are useful to the public. When

we say, All joint-stock banks are worthy of public confidence, we mean, all banks where the principles of joint-stock banking are honourably carried out in the administration as well as in the constitution of the bank. Hence the following syllogism is a fallacy :—

All joint-stock banks are worthy of public confidence ;
The Tipperary Bank was a joint-stock bank :
Therefore, the Tipperary Bank was worthy of public confidence.

Sometimes the universality of a proposition is obviously restricted by the subject to which it refers. Thus, when we say, All bankers acquire wisdom by experience, we do not mean absolutely that all bankers acquire wisdom, but only that such bankers as acquire wisdom, get it by means of experience. So when we say, All Scotchmen are good bankers, we mean only that all the Scotchmen who are bankers are good bankers, not that every man who is born a Scotchman is a good banker. Hence the following syllogism is a fallacy :—

All Scotchmen are good bankers ;
Our gardener is a Scotchman :
Therefore, our gardener is a good banker.

2. Erroneous reasoning sometimes arise from the indefinite meaning attached to the word "some." This word is usually employed to denote a portion of a species or a part of a whole. It may be said, "A bank that has a large paid-up capital and large deposits, may safely invest *some* portion of its funds in inconvertible security." And when the amount under consideration is proportionably small, it would be difficult to disprove this proposition, so far as concerns the *safety* of the bank. But the first act becomes a precedent for a second, the second for a third, and so on ; and it has occurred that a large portion of the funds of a bank has thus been locked-up, though the sums have been individually of a small amount. So, when a hazardous advance is proposed to a good, but a speculative customer, it may be advocated by saying, "We must run *some* risk ; banking can't be carried on

without it." If this expression means only that, with all our caution, some losses will be incurred, it is true enough; but if it means that we ought voluntarily, and with our eyes open, to make riskful advances or investments, the principle is unsound. A business risk is different from a speculative risk. The business risk is not believed at the time to be a risk; and the loss, when there is a loss, arises from unexpected events. The speculative risk is known at the time to be a risk; and the party is induced to engage in it from the hope of large profit. It is true that a banker's transactions could not be carried on without incurring a business risk; that is, he is liable to the contingency that attaches to all human affairs. But it can be carried on without engaging in speculative risks; and the more frequently he engages in such risks, the sooner he is likely to stop payment. The certainty of making losses is an argument for increased caution, not for the neglect of it. In ordinary life, no one would contend that, because he cannot wholly escape illness, therefore the rules of health should be entirely disregarded. The rule should be—I am very liable to take cold; I must, therefore, take more care of myself. The banker should also say—I will avoid every class of riskful investment, for, with all my care, I shall have losses enough. There are other words besides the word "some," which, from being indefinite, lead to erroneous conclusions—such as "a little," "a few," and others of similar import. A customer when he opens his account, tells the banker that he shall want a *little* accommodation; by which he means as much as he can get. A man who cannot pay his bills, requires *a few days* of grace. This request is repeated again and again, till the few days are stretched to a period that never ends.

3. Another error is in classifying under a common genus several species that have but a remote likeness to each other. All the species must have some attributes in which they agree, and some in which they differ. The attributes in which they all agree may be ascribed to the genus, but none of the attributes in which they differ. Let us take, for illustration, animal as a genus, and beast, bird, fish, &c., as the species.

Now, all the species agree in having life and motion; hence we may say, all animals have life and motion. But these species have some different attributes; and these we cannot attribute to the genus animal. We cannot say, all animals have four legs—all animals fly—all animals live in the water, &c.

Some writers, under the word "currency," have classified coin, notes, bank-deposits, bills of exchange, cheques, book-debts, &c. As classifications of this kind are perfectly arbitrary, any writer is at liberty to make any classification he pleases; but he should remember, that, in proportion as he increases the number of his species, he must generalise the meaning of his genus, and that all his species will have attributes distinct from each other, however he may classify them. Thus, if he define currency to have intrinsic value, he confines it to the precious metals; if he include coin and notes payable on demand, he extends the meaning; if he define currency anything which will pay a debt, he may include bills of exchange, cheques, and bank-deposits. But in proportion as he extends the meaning, he will render his reasonings more indefinite; and, after all, he must consider the separate effects of coin, notes, bills of exchange, &c., if he wishes to obtain any principle capable of a practicable application. Unless he do this, he will be in danger of confusing himself by false reasonings—as, currency has intrinsic value—bills of exchange are currency—therefore, bills of exchange have intrinsic value. Some eminent writers on political economy have been distinguished by extending the meaning of old words, and they seem to fancy that in doing so they discover new principles; whereas, in fact, they have merely given increased ambiguity to the technical phraseology of the science.

4. Another error is in attributing to all the species of a genus an attribute that belongs only to one species. As an example, we will take *bank-notes* as a genus, and notes issued by the Bank of England, the country banks, the Bank of Ireland, and the Bank of Scotland, as the several species. It was considered a few years ago as an established fact, that the

excessive issue of notes by the Bank of England was the cause of a low rate of interest, and of speculative excitements, and that these, by turning the foreign exchanges, caused the gold to leave the country, and produce commercial panics. It was proposed, as a cure for these evils, that the bank should be compelled to regulate her issues by the amount of gold in her coffers. But some writers attributed the same effects to notes issued by the country banks, and by the Banks of Scotland and of Ireland. And they seriously advanced against all these banks the accusation, that they did not make their issues correspond with the amount of gold in the Bank of England. They seem to have overlooked the fact, that while Bank of England notes could be issued in the purchase of gold, or of government stock, or exchequer bills, or any other securities saleable in the London markets, none of the other banks could issue their notes in making such purchases, as their notes would not circulate in London. Yet in 1844, when it was deemed expedient to regulate the issue of the Bank of England by the amount of her gold, restrictions were also placed upon the issues of all the other banks. Thanks to the science of statistics, the laws of the currency are now better understood. From returns made by the banks themselves, it has been ascertained that the currency of Scotland, of Ireland, and of our country banks, are all regulated by different laws; and all these laws are different from those which regulate the circulation of the Bank of England.

SECTION IV.

THE RELATION OF PHYSICAL CAUSE AND EFFECT APPLIED TO BANKING.

I HAVE considered the relation of physical cause and effect in the fourth section of the second part of this work; and in the illustrations I have given from my own writings,—I have noticed—the physical materials used in banking,—the

bank building—the arrangements of the office—banking book-keeping—forgeries—the circulation of bank-notes—the health of the clerks—and the health of the banker.

We will now consider the application of this principle to some other cases that have a reference to banking.

1. The buildings, tools, or instruments by which the trade of banking is carried on, are physical causes of the effects they produce.

In the beginning of the year 1851, I offered a reward of 100*l.* for the best essay written in reply to the following question :—"In what way can any of the articles collected at the Great Exhibition of 1851 be rendered especially serviceable to the interests of Practical Banking?" Some five or six essays were written on the subject, and as the referees differed in opinion, the final adjudication between two of the essays was referred to George Grote, Esq., the author of the History of Greece, and who was formerly a partner in the London banking-house of Messrs. Grote, Prescott & Co., and M.P. for the City of London. Mr. Grote awarded the prize to Mr. Granville Sharp, an accountant in the East of England Bank, at Norwich: this essay has since been greatly enlarged, and published, under the title of "The Gilbart Prize Essay," by Messrs. Groombridge & Son, 5, Paternoster Row.

In this notice I made the following classification of the objects that appeared to me to be likely to be exhibited :—

Architectural models that might suggest improvements in the bank houses or offices.

Inventions by which light, heat, and ventilation might be secured, so as to promote the health and comfort of the bank clerks.

Discoveries in the fine arts by which the interior of a bank might be decorated, or the bank furniture rendered more commodious.

Improvements in writing-paper, pens, ink, account-books, scales, letter-copying machines, or other instruments used in carrying on the business.

Improvements in printing and engraving by which banks could get their notes, receipts, letters of credit, and other

documents of a better kind, at a less expense, or so as to prevent forgery.

New inventions in the construction of locks, cash-boxes, and safes, which shall render property more secure against fire or thieves.

And, generally, all articles of every kind which can be so applied as to improve, cheapen, or facilitate any of the practical operations of banking.

Mr. Sharp in his essay followed the above classification. The 'Builder' observes:—"It contains a fair view of much that is new and good, in regard to all such inventions as may tend to promote the safety, convenience, healthfulness, and comfort of banking edifices;" and Mr. Baker, the architect of the elegant building erected by the London and Westminster Bank in High Holborn, states that he received many useful hints from Mr. Sharp's essay. The 'Times' observes:—"It gives an excellent idea of all the mechanical points to be attended to in the formation of a bank, from its architectural construction down to the selection of locks, envelopes, engraved cheques, and all the minute materials of daily business. In these respects it is not only useful with regard to the arrangement of banks, but furnishes suggestions that would be valuable in large commercial establishments of every kind."

Much discussion sometimes takes place among the directors respecting the bank building. One party contends for strict economy—stating that no unnecessary expense ought to be incurred, that plainness is most consistent with a character of a house of business, and that the money of the shareholders should not be squandered away in useless decoration. Another in reply, will state, that a large building is more convenient to the public, more conducive to the health of the clerks, and more adapted for the effective operations of the office. It will also be contended that where the building is large, the strong rooms or safes may also be large, and hence the customers of the bank may lodge their deeds or plate with more convenience and security. With regard to ornament, it may be contended that an elegant building attracts the

attention of the public, and leads to an increase of connexions; also, that it gives a character of respectability to the company, and shows a spirit of taste and liberality. It may also be said, If a wealthy individual is expected to live in proportion to his means, why should not a wealthy company have its various offices fitted up in a manner proportionate to its wealth? and is it not equally the duty of a company, as of an individual, to regulate its expenditure so as to promote the industry, trade, and fine arts of the country?

The controversy as to the respective merits of English and American locks occupied a short time ago the attention of bankers. Upon this subject we refer to Mr. Sharp's essay. There is no doubt that some of our best locks were picked, and fairly picked. It is equally certain that no lock was picked on the first attempt, and that now improvements have been introduced to render the picking more difficult. A bank should be so constructed as that no stranger could get access to the strong room without being perceived by some of the establishment; and all day and night, and especially on Sundays, some of the officers should occupy such portions of the bank premises as would prevent any party having an opportunity of trying to pick the locks. Those officers, also, who have charge of the keys should keep them always in their own possession, and not leave them lying on a desk or table, exposed to the view of persons who might observe their form and construction.

The forgery of bank-notes is a subject that at all times creates great interest. The greater the talent and expense necessary to the production of a note, the less likely is it to be forged. One advantage arising from numerous banks of issue is, that as the notes of each bank circulate in only a limited district, the notes are well known, and an amount of forged notes could not be put into circulation sufficient to repay the outlay of capital necessary to their fabrication. Hence the notes of the Bank of England are those chiefly which forgers have attempted to imitate. Mr. Alfred Smee, F.R.S., delivered a lecture before the Society of Arts, on December 20, 1854, upon those measures which the Bank had

then recently adopted with a view to the prevention of the forgery of their notes. And Mr. Henry Bradbury delivered a lecture on May 9th, 1856, before the Royal Institution, upon "the Security and Manufacture of Bank-notes."

That kind of forgery which consists in taking out the amount written on a cheque or letter of credit, and substituting a larger sum, is now pretty well prevented by the use of tinted paper. But the forgery of a party's name is still an evil against which bankers have no protection.

It may be observed with reference to the above physical causes and effects, our evidence must be obtained by observation and experiment. But reasoning is employed in the discovery and in the application of new principles. Every inquiry after improvement is an inquiry after new causes—such causes as shall produce some desired effect, or shall prevent some effect we wish to remove. If the bank chimney smokes, we ask, How can this be prevented? If there is a current of cold air passing through the office and affecting the health of the clerks, we inquire, How can this be guarded against? If the system of book-keeping is found to be inapplicable to the increased business of the bank, we try to amend it. So if we wish to "improve, cheapen, or facilitate any of the practical operations of banking," we are thankful to Mr. Sharp, or to any one else who will point out the causes that are adapted to produce these effects.

2. Money is a material substance. The following are its attributes:—

"That medium of exchange must be best which unites in itself the largest amount of the following qualities:—sameness of value both as to time and place, divisibility, durability, and facility of transportation. The metals—especially gold and silver—possess all these qualities in a great degree. We may have them in tons or in grains: wear is slow: fire will not destroy them; when divided, they can be fused again and re-blended; and, except where large values are concerned, they are easily conveyed from place to place. Because metals possess these qualities, they were early and (in civilized countries) universally adopted as a medium of exchange."—*Rev. S. Martin's Lecture on Money.*

The effect of money is to facilitate the exchange of commodities:—

"What a useful thing is money! If there was no such thing as money, we should be much at a loss to get anything we might want. The shoemaker, for instance, who might want bread, and meat, and beer, for his family, would have nothing to give in exchange but shoes. He must go to the baker, and offer him a pair of shoes for as much bread as they were worth: and he must do the same thing if he went to the butcher for meat, or to the brewer for beer."—*Easy Lessons on Money Matters.*

Paper money is a material substance, and is a substitute for metallic money. The following are the effects of this substitution:—

"A particular banker lends among his customers his own promissory notes, to the extent, we shall suppose, of a hundred thousand pounds. As those notes serve all the purposes of money, his debtors pay him the same interest as if he had lent them so much money. This interest is the source of his gain. Though some of these notes are continually coming back upon him for payment, part of them continue to circulate for months and years together. Though he has generally in circulation, therefore, notes to the extent of a hundred thousand pounds, twenty thousand pounds in gold and silver may frequently be a sufficient provision for answering occasional demands. By this operation, therefore, twenty thousand pounds in gold and silver perform all the functions which a hundred thousand could otherwise have performed. The same exchanges may be made, the same quantity of consumable goods may be circulated and distributed to their proper consumers, by means of his promissory notes, to the value of a hundred thousand pounds, as by an equal value of gold and silver money. Eighty thousand pounds of gold and silver, therefore, can, in this manner, be spared from the circulation of the country; and if different operations of the same kind should, at the same time, be carried on by many different banks and bankers, the whole circulation may thus be conducted with a fifth part only of the gold and silver which would otherwise have been requisite.

"An operation of this kind has, within these five-and-twenty or thirty years, been performed in Scotland, by the erection of new banking companies in almost every considerable town, and even in some country villages. The effects of it have been precisely those above described. The business of the country is almost entirely carried on by means of the paper of those different banking companies, with which purchases and payments of all kinds are commonly made. Silver very seldom appears except in the change of a twenty shillings' bank-note, and gold still seldomer. But though the conduct of all those different companies has not been unexceptionable, and has accordingly required an Act of Parliament to regulate it, the country, notwithstanding, has

evidently derived great benefit from their trade. I have heard it asserted, that the trade of the city of Glasgow doubled in about fifteen years after the first erection of the banks there; and that the trade of Scotland has more than quadrupled since the first erection of the two public banks at Edinburgh, of which the one, called the Bank of Scotland, was established by Act of Parliament in 1695; the other, called the Royal Bank, by royal charter in 1727. That the trade and industry of Scotland have increased very considerably during this period, and that the banks have contributed a good deal to this increase, cannot be doubted."—*Adam Smith's 'Wealth of Nations.'*

Viewed merely as instruments of currency, paper money has some advantages over metallic money. First, a large sum can be carried in a small compass; and, secondly, the value is not diminished by friction. All coin becomes light in the course of time by the mere operation of passing from hand to hand. This is disregarded, until the coinage generally becomes so much below the standard that the bankers begin to weigh the sovereigns. Ultimately the Government issue a new coinage, and great loss falls upon those who happen to be holders of the coins previously in circulation.

3. A change in the quantities of the material commodities circulated by money will have the effect of changing the amount of money called into circulation.

"I have told the committee that I was formerly manager of a joint-stock bank of issue in Ireland, and I have attempted to discover the laws which regulate the circulation of that country, by ascertaining the highest and lowest amount of the circulation in each year. This, which I have in my hand, is a table showing the circulation of the Bank of Ireland (including branches), the separate circulation of the branches alone, and the circulation of the Irish joint-stock and private banks, on the last Saturday of April, August, and December, of the years 1834 to 1839. It will be observed that those periods are the same as those which I have referred to in the circulation of the English country banks. The law of circulation appears to be different, but they agree pretty nearly in this, that the lowest point is the latter end of August; but the highest point in Ireland is generally the end of December or the beginning of January, and from December, or the beginning of January, it declines; so that the country circulation of England is advancing eight months and declining four; but the circulation of Ireland is advancing four months and declining eight.

"To what do you attribute this uniform increase of the Irish circulation towards December?—I attribute it to the trade in corn, and bacon,

and cattle, which commences in the months of September and October in every year: the produce of the harvest commences to be brought to market in September, but the bacon is made in the beginning of October. The bacon must be made in cold weather, and therefore pigs are reared so as to be fit for killing by the first of October; and in the beginning of October the provision merchants send out their men to purchase pigs at the different markets, and they get notes from the bank. The cattle trade is conducted in the same way: men go to the market to buy pigs and cattle, and take them over to Bristol and Liverpool, but chiefly to Bristol, from the part where I was. Those notes are chiefly issued in three ways. During the summer, the merchants, having their capital unemployed, lodged it as deposits in the bank; then, when the season for trade commenced, they drew out their deposits, in the form of notes. Afterwards, they brought us bills upon their factors, in London, and our notes were issued in discounting those bills which they had drawn against the exportations of bacon and cattle. The dealers took their pigs and cattle over to Bristol, and sold them in the various markets and fairs in the west of England, and received the notes which were circulating in that district, and took them to Mr. Stuckey, and got a letter of credit upon me, payable on demand, for the amount. So that our notes were issued, in the first place, by the withdrawal of deposits; secondly, for the discounting of bills on London drawn against the exports which were made; and thirdly, for the payment of letters of credit which had been obtained by the parties who had sold Irish cattle in the English markets. The notes were, therefore, drawn out by the trade of the country; and of course it was not in our power to withhold issuing those notes, unless we wished to cramp the trade of the country."

4. As a farther exemplification of physical cause and effect as applied to banking, we may state that an increase in the quantity of the precious metals is a powerful cause of important effects.

The importations of gold from Australia may be regarded either as an increase to our money, or as an increase to our wealth. By money we mean coin or bank-notes payable on demand. When the gold is purchased by the Bank of England, there is then an issue of bank-notes for the amount, and this is an increase to our money. The party receiving this money may, if he please, lodge it in the banking department of the bank to the credit of his drawing account. In this case the "private deposits" and the "notes on hand" are increased. Or he may lodge it in one of the London

private or joint-stock banks. This bank will attempt to employ the money in the money-market, either by discounting-bills, or by loans on stock or other securities. In this case the money, as far as it goes, will tend to reduce the market-rate of interest. But if there be no demand for money in this way, then the bank will lodge the money in the Bank of England; for London banks generally have now a drawing account with the Bank of England. Here again there is an increase in the amount of "private deposits" and the "notes on hand." If this increase should be to a large amount, or continue for any length of time, the bank would probably reduce her rate of interest on the bills she discounts, and this would lead to those results which usually follow a low market-rate of interest.

But the gold might not be purchased by the Bank of England. This bank can, by Act of Parliament, give only 3*l.* 17*s.* 9*d.* per ounce for standard gold; but the Bank of France might be disposed to give a higher price; and Messrs. Rothschild, as their agents, might purchase it and send it to France. But Messrs. Rothschild cannot pay for this gold by an issue of their own notes; they must pay for it in notes of the Bank of England, and when they export it to France we must in some way, sooner or later, receive value from France in return. Then there is no increase to our money, but an increase to our wealth.

But this gold when it arrives may not be sold either to the Bank of England or to Messrs. Rothschild. It may be sold for domestic consumption to manufacturers, and others who employ it in watches, chains, gilding, and a variety of other ways for the use or ornament of the community. In this case, too, there is no increase to our money, but an increase to our wealth. Our wealth is increased by the possession of all those articles into which the gold has been manufactured, and by the reward given to the additional labour which has been called into existence by their manufacture.

This wealth has been introduced into our country in two ways. First, directly by the diggers, who have either re-

turned home, bringing their gold with them, or have sent it home to be employed for their advantage. In this case, the country gains the gold without giving anything in return. Secondly, the gold may have been obtained by our exporters of commodities in exchange for shipments sent to the colony for the use of the inhabitants. Here the wealth was obtained in exchange for our manufactures; and so long as our exports did not exceed the demand, high prices were obtained, and our shippers and manufacturers increased their wealth. The wealth obtained by either of these means becomes gradually diffused throughout the community. When one individual in a country becomes wealthy, he increases the wealth of others without necessarily diminishing his own. If he expend his income unproductively, as it is called, that is, with a view to his personal comfort, he has the value of his money in the articles he receives, while he increases the wealth of those who, by their capital and labour, have produced those things that minister to his enjoyment. But if he goes into trade, or invests his money in any public company that is wisely administered, he adds to the productive capital of the country, and increases the wealth of the community as well as his own.

Any addition to the wealth of a country promotes the prosperity of its banking institutions. Larger amounts are lodged on deposit. Wealthy manufacturers extend their trade and require advances. There is less distress and fewer bad debts. Monetary transactions become more numerous, and the profits of bankers are increased. But we do not perceive that any increase of our wealth, either by the export of the gold or by its domestic manufacture, would affect the prosperity of the banks to any greater extent than the increase of our wealth to an equal amount by any other means. If by any new invention in the weaving of silk or the smelting of iron, the wealth of the country were to be increased, as much as it has been by the importation of gold from Australia, then we think the effects on the prosperity of our banks would be much the same.

As far as concerns the country, there is this difference.

In consequence of our laws for regulating the currency, an increased quantity of gold produces, or may produce, an increase in the issue of bank-notes; but a cheaper production of any other commodity would not produce that effect. Secondly, as gold is the money between nations, we are enabled, by the increased quantity of gold, to purchase whatever we may require from all other nations, even from those who may not require any of our commodities in return.

But the banks have made large profits as the purchasers and remitters of the gold produced in Australia. Some of the diggers, as we have said, have brought home their gold to England; but most of them sell their gold to the banks in Melbourne. And at first, when the gold was not assayed, and the purchasers were few, large profits were made by the banks; but now that there is an assay office and a mint in Melbourne, and new banks are established, the profits are less extravagant. The plan now is for the diggers to bring their gold to the banks, and the amount of the purchase-money is placed to their credit. The more reckless spend their money foolishly in Melbourne, and then go back to dig for more; but the more prudent obtain from the banks a bill at thirty days' sight upon a bank in London, which they remit home to their friends or agents. The shippers, who sell their goods in Melbourne, make their remittances to London in the same way.

It is obvious that this increased issue of notes, caused by the purchase of gold by the Bank of England, must have a different effect from that increased issue of notes made immediately after harvest by the banks of Ireland. In the latter case, the notes are taken from the banks by corn-dealers and others to pay for agricultural produce. These notes received from the dealers, the farmers pay for rent to their landlords, who return them to the banks, either as lodgments to the credit of their accounts, or in exchange for bills on Dublin or elsewhere. Thus these notes can have no effect in advancing prices, lowering the rate of interest, or turning the foreign exchanges. But the notes issued by the Bank of England against gold have no destined employment. Unless

in some way appropriated, they form what the Americans call "Loanable capital," or as we say, they are notes seeking employment. If this money be employed in loans and discounts, it will tend to lower the market-rate of interest. If in the purchase of corn, colonial produce, or other commodities, it will tend to advance their price. If invested in shares of public companies, or in Government securities, it will tend also to raise their value in the money market. A portion of the money, too, with a view to obtain a higher rate of interest than can be realized by ordinary investments, will probably be applied to new speculative undertakings. Every additional importation of gold may give an increased stimulus to each of these operations, until their combined effects may cause a reaction. The foreign exchanges may become unfavourable. Gold may be exported to other nations; the amount of notes may thus be contracted, and their withdrawal from their previous employment may produce effects just the reverse of those we have now described.

A more striking example of errors in reasoning with regard to monetary science can scarcely be produced than that which prevailed on the discovery of the gold mines in Australia. It was supposed by men eminent as political economists and as bankers, that the abundance of gold thus obtained would permanently reduce the rate of interest, would advance the price of all commodities, would cause consols to be reduced to two per cent., would introduce misery among annuitants, and cause such an excess of gold as to derange all existing commercial arrangements. And it must be confessed that their opinions appeared to be founded upon the recognised doctrines of political economy. Yet they have all turned out to be erroneous. Why is this? Are these doctrines unsound, or were the deductions from these principles unsound? Neither the one nor the other. It is a sound principle, as we believe, that the increase of money has a tendency to raise prices and to lower interest. And there was a probability, if not a certainty, that a large increase of gold would arrive from Australia. But the parties who adopted the opinion to which we have referred, overlooked the

circumstance that this increase of gold would produce other effects,—that the very increase of supply would cause an increase of demand. Their opinion was founded upon the supposition that gold would increase, and other things remain the same; but other things did not remain the same. In some countries gold was substituted for bank-notes, and in other countries it was substituted for silver. Gold was required for payment to our troops in the East, and for remittances on account of foreign loans. From these and other circumstances which were not taken into account, gold has generally been as scarce in this country, and the rate of interest has been as high, as before the discovery of the mines in Australia.

SECTION V.

THE RELATION OF MORAL CAUSE AND EFFECT APPLIED TO BANKING.

In the illustration of this principle we have adduced, from our own writings (see page 85), articles on—The effects of a large paid-up capital—Effects of a surplus fund—Effects of a system of branches—Effects of bills of exchange—Causes and effects of pressure.

This principle is of extensive use in banking. Here we might easily ask a multitude of questions, as—What has been the effect of a national debt? of the issue of paper money? of the establishment of joint-stock banks? and what would, probably, be the effects of the various suggestions proposed for the regulation of our banking institutions? and, on the other hand, we might inquire into the causes of the introduction of money, the prosperity of commerce, the origin of banks, the various forms of banking in different countries, the form it has taken in England, and the causes of the success or failure of particular banks? We might propose these and many other questions, the discussion of

which would involve the examination of many of the principles of political economy. But we shall refrain from doing this, and shall merely suggest a few topics, not with a view of discussing them at length, but of pointing out some modes of erroneous reasoning, by which we are in danger of being misled when we wish to form a correct judgment respecting them.

1. What are the causes of the fluctuations in the public funds?

Political economists have a very easy way of accounting for fluctuatious in price. They tell us that the prices of commodities depend upon the proportion that may exist between the supply and the demand. Wages—the price of labour—depends upon the proportion that may exist between the supply and the demand for labour. The rate of interest—the price of the loan of money—depends upon the proportion that may exist between the demand and the supply of money. If we rest here, this information is not of much practical value. Nor is this maxim in all cases correct, as applicable to the public funds, if, indeed, it be to anything else. It is not correct that the price of the funds never fluctuate except when there is a variation in the proportion between the supply and the demand; nor is it correct that every variation in this proportion produces a corresponding variation in the price. If any one desires to make out a catalogue of the causes that may affect the prices of the funds, we know of no better means than an extensive reading of the "City articles" in our morning papers; for, though in many cases he may doubt the operation of the cause in the particular instances in which it is adduced, he will learn what are the causes which, in the opinions of the writers, are adapted to produce the effects ascribed to them.

The object of a banker in investigating the causes that have in times past influenced the price of the funds, is to enable him to form a probable judgment as to the fluctuations that may take place in future. To judge of the future by the past involves two processes of reasoning. First, we have to form an opinion as to the events that may take place.

Secondly, we have to judge as to the effects which those events, should they occur, will have upon the funds. In each of these processes the banker may be wrong. He may anticipate a war, a bad harvest, a depression in trade, increased taxation, a revolution in neighbouring states, or any other event; and in these expectations he may be disappointed. We know that for above a year before the declaration of the late war against Russia it was doubtful whether there would be a war or not, and bankers and all other persons connected with monetary affairs were in a state of suspense as to the best mode of conducting their operations. Of course a banker has no advantage over the public at large in judging of the probability of future events, and his erroneous reasoning in this respect is no reflection upon him as a banker. But here is a second process of reasoning. Supposing these events should occur, what, then, will be their effect upon the public funds? Here, too, unfortunately, the banker, with all his professional knowledge, is just as likely to be wrong as right in his judgment. The anticipated events may occur, but they may not produce the effects expected. The same events, when associated with different circumstances, will produce different effects. Were our eminent bankers and political economists willing to learn lessons of humility, they might gather abundant instruction from the events of the last few years. Where is the commercial paradise in which we were to be placed by the Act of 1844? and where, on the other hand, are the perplexities and disasters that were to attend the importations of gold from Australia? The great error in this reasoning has been a false induction. It was laid down as an established principle, that an importation of gold would always produce an advance of prices. Yet we have had importations of gold that were not followed by an advance of prices. It was considered as certain that a high value of money would always produce a low price of the funds. But during the war with Russia, we had a high value of money and at the same time a high price of the funds. If errors in opinion were now visited with the same punishment which was in former times inflicted upon errors

of conduct, how many of our eminent writers should we now see doing penance in a white sheet at the church-door!

But though a banker is often wrong in his conclusions, it is still necessary that he should reason upon these topics. When he cannot obtain certainty, he must be content with probability. He must not only endeavour to form just opinions himself, but he must also observe the opinions of others; for opinions as to the future price of the funds, whether correct or not, have an effect upon the present price. Hence, to look over the newspapers, to keep himself acquainted with all public events, to observe the reasonings of talented men, to examine the theories of the money article, are among the morning duties of a banker; and his subsequent operations will be regulated by the conclusions to which he may arrive in his own mind from the various sources of information and reflection which have passed under his review.

2. What are the causes of the fluctuation in interest in the London money market?

The rate of interest in the London money market is governed by the rate charged by the Bank of England. But the Bank of England, in fixing her rate, is not influenced by caprice, but is regulated by reasonable considerations, and arrives at her decision after mature deliberation. Previous to the year 1844 the Bank changed her rate of interest, with the view of producing an importation or an exportation of gold. It had been found that when the rate of interest was low, gold was exported; and when it was high, gold was imported. But the variation of interest was confined to a narrow range. The Bank never charged a higher rate than five per cent., nor less than four. But after the Act of 1844, the Bank adopted two new principles of action: one was to reduce the rate of interest to two and a half per cent.; the other, to render this the minimum rate to be charged upon first-class bills, and to charge a higher rate upon bills of an inferior class. The Bank continues to change her rate according to the stock of gold in her issuing department. She states, indeed, that she is regulated by the stock of

notes in the banking department; but as a decline in the amount of gold in the issuing department causes a decline in the amount of notes in the banking department, it matters not which reason is assigned, as the practical operation is the same.

The maximum rate in the discount market is the minimum rate of the Bank of England; for when the discount rate rises to the Bank rate, the merchants send their bills for discount to the Bank of England. But when the market rate is below the Bank rate, the merchants give their bills to the bill-brokers. A broker is an intermediate party between the buyer and the seller; a bill-broker is an intermediate party between those who discount bills and those who have bills they wish to be discounted. The rate of interest charged by the brokers to their principals is called the market-rate; the rate obtained by the discounters is about one-eighth or one-quarter below this rate, and the difference forms the broker's profit or commission. Some brokers have large capitals of their own employed in their business. The business of such brokers is that which is now about to be undertaken by the new discount companies.

Although the market-rate of discount is governed in the first instance by the importations and exportations of the precious metals, yet it is subject to considerable fluctuations from other causes. The extension of trade, the expectation of a Government loan, the prospects of the harvest, the rate of interest on the Continent,—these and other causes will have an effect upon the market price of money. It was supposed at one time that the rate of interest was always connected with the price of the funds; that when the interest was up, the funds were down, and that when interest was low, the funds would be high. In the recent war with Russia, the rate of interest was high and the funds were high too.

Bankers are as liable to form erroneous opinions with regard to the future value of money as with regard to the future price of the funds. They may be mistaken in expecting events that may not arrive, and they may be mistaken as to the influence of those events in case they should occur;

for the events may be associated with new circumstances that may counteract or modify their natural tendency.

3. What is the cause of the failure of joint-stock banks?

We have discussed this question in our 'Practical Treatise on Banking,' and have no intention of re-discussing the question here. We wish only to point out some species of false reasonings which we have seen adopted in reference to this subject. Whenever a joint-stock bank stops payment, it is presumed that it has got into difficulties from some peculiar circumstances in its constitution or proceedings in which it differed from other banks. Thus, if the fallen bank had many branches, it is presumed that the branch system was the cause of its stoppage; and if it granted cash credits upon the Scotch system, as in the recent case of the Royal British Bank, it was supposed that the system of cash credits was the cause of the failure. But when the circumstances are investigated, it is found that the banks have fallen from the ordinary causes of bank failure. Neither the branch system nor the cash-credit system have any necessary tendency, if prudently administered, to injure the banks that adopt them. But when a general neglect of sound principles marks the proceedings of a bank, it will, of course, characterise also its branches and cash credits, and then the branches and cash credits are deemed to be the cause of its failure.

A London banker stated in his evidence before the Bank Charter Committee of 1832, that all the London bankers who had allowed interest on deposits had failed, leaving the Committee to infer that the allowing an interest on deposits was the cause of their failure. But among the failures of London bankers, the majority did not allow interest on deposits. So among the joint-stock banks some have failed that had no branches, and who did not grant cash credits.

When banks fail, most people fancy that, were the Government to adopt some specific regulations, such failures would never occur. We think it quite proper that Government should impose upon all banking companies such regulations as may be necessary for the public good; but we think it a great mistake to suppose that any body of men can be rendered

either wise or honest by Act of Parliament. So long as banks are placed under the government of incompetent or unprincipled men, so long will they continue to fail. In most cases, too, with regard to either private or joint-stock banks, the failure is ascribed mainly to the acts of some one person. Such persons care little about Acts of Parliament. If their regulations were felt to be restrictions, they would be neglected or evaded. On this subject we quote from the City article of the 'Times' of September 12, 1856 :—

"The failure of the Royal British Bank has led to a variety of suggestions from those who are prone to believe that Government restrictions to prevent such disasters are better than the lessons of experience. In the face of all that has been shown of the effect of legislative attempts to keep men prudent by determining the modes in which they shall transact their business, there are always a number of persons ready, whenever any financial disaster occurs, to propose measures of control, the fact being wholly lost sight of that a multitude of regulations serves merely to confuse the general public, and to give adroit schemers increased openings for evasion, while at the same time it begets a false confidence, and extinguishes the habit of private vigilance. The evils of such a system would be insuperable, even if Parliament, instead of being constituted as it is, were composed of persons gifted with greater discernment as to the true principles on which financial establishments should be conducted, than the ordinary trader whose daily personal interests are all enlisted in the question. It is damaging, therefore, whenever an event occurs from which men should be taught to gather for themselves a wholesome lesson, to seek to divert them from the true uses of the adversity by representing that it has happened not from any want of wisdom on their part, but from the neglect of statesmen to frame preventive checks. In the case of banks, when a stoppage happens, it is usually contended that greater publicity of accounts, the supervision of a Government auditor, the compulsory investment of the capital in Government stocks, or other analogous provisions, should forthwith be adopted. The whole, however, would prove nugatory. The publication of bank accounts, unless coupled with the names of the drawers, acceptors, and endorsers of each bill discounted, is entirely worthless; the supervision of Government auditors would sink into deceptive routine, or be accompanied by vexatious formalities that would render it intolerable; and the enforced investment of capital in any particular method would throw all the responsibility upon the State in case, through political or other circumstances, it should at any time lead to embarrassment."

4. What effects have been produced by the establishment of joint-stock banks in London ?

One obvious effect has been the introduction of new principles into banking practice. Such are the allowing of interest on deposits, and by some banks on a certain portion of the balance of a current account—the opening of commission accounts—and the establishment of branches of the same bank in different parts of London. And the extent to which these new principles have been adopted shows that they are suitable to the wants and the desires of a large portion of the community.

Another effect is, a great increase in the number of persons who keep an account with a bank. Many classes, whose accounts would not have been taken by the old London bankers, are now received with courtesy and even thankfulness. The London Committee of Deputies stated in their resolution respecting the proposed stamp of a penny on each cheque: —

1. "That the deposit system of banking, which enables individuals to place money in banks, and to make all their payments by cheques, is beneficial to the depositors themselves, to the banks, and to the community at large.

2. "That the introduction of joint-stock banks has greatly extended this system, and brought its advantages within the reach of the less wealthy classes of society.

3. "That the efficiency of this system would be greatly impaired, and its progress arrested, by the imposition of a tax of one penny upon each cheque.

4. "That the tax, being equal upon cheques of all amounts, will proportionably press most severely upon those depositors who draw cheques for small sums; and these classes, having most occasion to regard small savings, will be the most likely to close their accounts.

5. "That, in proportion as this tax shall cause money to be withdrawn or withheld from the banks, in such proportion will capital be rendered unproductive, individuals will be inconvenienced, pecuniary transactions will be obstructed, robberies will be facilitated, and demands created for additional currency, either in bank-notes or gold, while the banks will find their operations materially restricted, and their means curtailed of affording facilities to commerce, or of sustaining the financial operations of the Government."

Another effect is, that it has led to a more general acquaintance with the sound principles of banking. When joint-stock banks existed only in Scotland, and even when they were permitted in England ,beyond sixty-five miles from London, they attracted but little notice in London. The first joint-stock bank established in London was the London and Westminster Bank. It was announced in the public papers for nine months before it commenced business, and then only with a paid-up capital of about sixty-two thousand pounds, and a proprietary most of whom resided in the country. But as the joint-stock banks increased, the London public became more interested, both as depositors and as shareholders. The writers for the daily press found it necessary to instruct themselves in the general principles of banking, in order that they might be able to instruct the public. The annual reports provided matter for practical comment, and for the enunciation of correct principles. The effect of this general intelligence has been shown on the recent occasion of the stoppage of the Royal British Bank. We have had no violent tirades against joint-stock banking, no unjust suspicions of other establishments; but even the depositors in the fallen bank have generally opened new accounts, not with the private bankers, but with other joint-stock banks.

Another effect has been, an improvement in the management of the private banks.

If the number of banks that stop payment is any index of the degree of good management that may exist within any period of time, then it may safely be affirmed that the London private banks have been better managed, during the twenty years that elapsed after the introduction of joint-stock banks, than they were during the preceding twenty years. In the preceding period, sixteen banks who were members of the clearing-house ceased to exist. In the latter period, only six clearing banks have ceased, and of these only two stopped payment, the remaining four having either wound up or merged in other establishments. Of the non-clearing banks the chief failures, within the last twenty years, have been Messrs. Hammersly & Co., Messrs. Wright & Co., and Messrs.

Strahan & Co.; and of these the first two were in a state of insolvency long before joint-stock banks were established in London.

The character of banks is now a subject of more scrutiny and discussion. The effect among the private bankers is, that the large banks become larger, and the small banks smaller. Not that accounts are transferred from one class of banks to the other; but every party who wishes to open an account with a private banker selects one from among five or six large banks. The small banks get no new connexions; and as their old connexions die off, they will die too. The joint-stock banks are gathering strength in the same way. Young men, and others who have occasion to open a banking account, go to a joint-stock bank. The joint-stock banks are the bankers of the rising generation. The private banks are the bankers of the generation that is passing away. As time passes on, the joint-stock banks will arrive at the maturity of their strength, and the private banks will sink into imbecility. It is not, perhaps, desirable that these changes should go on more rapidly than at present.

5. What would probably be the effects of the adoption of the decimal currency?

In considering the probable effects of a new measure, we are confined to moral reasoning. We should form a comparison between the proposed measure and the existing practice. We should consider the probable effects from rational considerations of the measure proposed; and we should examine those instances of the same or a similar measure having been adopted in any other country, or at any former period in our own country. Upon this subject we shall confine ourselves to a few extracts from the Report of the Committee of the House of Commons, delivered in the year 1853:—

"Your committee, in pursuance of the duty entrusted to them of taking into consideration, and reporting upon the practicability and advantages, or otherwise, of adopting a decimal system of coinage, have proceeded to examine such witnesses as appeared to them most capable of giving information upon the subject of their inquiry.

"With regard to the inconveniences of the existing system, the evidence is clear and decided. That system is shown to entail a vast amount of unnecessary labour, and great liability to error, to render accounts needlessly complicated, to confuse questions of foreign exchanges, and to be otherwise inconvenient.

"On the other hand, the concurrent testimony of the various witnesses is to the effect that the adoption of a decimal system would lead to greater accuracy, would simplify accounts, would greatly diminish the labour of calculations (to the extent of one-half, and in some cases four-fifths, acording to Professor De Morgan, who has made the question his especial study), and, by facilitating the comparison between the coinage of this country, and other countries that have adopted the decimal system, would tend to the convenience of all those who are engaged in exchange operations, of travellers and others. An important benefit would be derived in several departments of the public service, and in every branch of industry, from the economy of skilled labour which would result from the proposed change; at the same time that the education of the people generally would be much facilitated by the introduction into our schools of a system so directly calculated to render easy the acquirement of arithmetic.

"Your committee have endeavoured to ascertain the probable feeling of the public, especially of the working-classes, in reference to the proposed change; first, by examining witnesses who may be considered to be well acquainted with their feelings; and, secondly, by means of the analogy to be drawn from previous changes of a somewhat similar character. As respects the first point, several witnesses who have very extensive dealings with the poor, and some of whom are accustomed to take as many as 1,000 farthings per week over the counter, have expressed their opinion that if the farthing were altered from its present value (the $\frac{1}{960}$th part of the pound sterling) to the $\frac{1}{1000}$th part of the pound in accordance with the decimal subdivision, no prejudice would be raised against this slight decrease of four per cent. in the value of the farthing, provided they were made to understand that they could, on the other hand, get twenty-five of the new coin for sixpence, where they now get twenty-four. All the traders examined also stated, as the result of their experience, that competition invariably causes the quantities of the articles sold to adjust themselves without difficulty to the value of the money received for them.

"Your committee have also taken evidence as to the difficulty experienced on occasions when the coinage of any country has been changed, and would especially refer to the cases of the United States and of Ireland. In the former country, the old system of pounds, shillings, and pence has been entirely superseded by the decimal system of dollars and cents, and no inconvenience appears to have attended the change. The principal difficulty with which your committee have now to contend

will be the substitution, in lieu of the penny, of a new copper coin, hereafter described, of which the present shilling will contain ten only instead of twelve. In the case of Ireland, where thirteen Irish pence made an English shilling, for which twelve English pence were substituted, a prejudice was originally felt on the part of the poorer classes, in consequence of their believing that as they only got twelve pence for a shilling where they formerly received thirteen, they sustained a loss of a penny in every shilling. They soon found from experience, however, that the injury was imaginary."

SECTION VI.

THE RELATION OF CONDITIONAL CAUSE AND EFFECT APPLIED TO BANKING.

THE word *incidental*, as applied to effects, is the correlative word to *conditional*, as applied to causes. A conditional cause is a cause that is essential to the production of an effect, but has no influence in actively producing that effect; and the incidental effect, with reference to this conditional cause, is the effect which is thus produced. An incidental effect is an effect which the cause was not designed to produce, but which the cause has been the occasion of producing. Thus, if a man commits forgery, it is a conditional cause that he previously has learned to write; his knowledge of writing is the conditional cause—his committing forgery is the incidental effect. It is important to sound reasoning to distinguish clearly between a conditional cause and an efficient cause—between a necessary effect and an incidental effect. Thus it has occurred that bank directors have made fraudulent advances to themselves or their friends, have acted imprudently in the investment of the bank funds, and have made false statements in their reports to the shareholders; and these unquestionable facts have been advanced as objections to joint-stock banking But these facts have not been necessary, but incidental effects. The formation of joint-stock banks was not the necessary, but only the conditional, cause of these frauds. It must be admitted that if no joint-stock bank had ever been formed,

no joint-stock bank could ever have been robbed, or have been employed as a means of robbing the public. But the formation of joint-stock banks did not necessarily produce these effects; and in many cases they have existed without producing them. As a parallel case, it may be stated that the institution of insurance for lives has been the conditional cause of husbands insuring the lives of their wives, and then poisoning them. The fire insurance offices have been the conditional cause of parties insuring their houses, and then burning them. Marine insurance offices have been the conditional cause of parties insuring ships that were not seaworthy, and thus causing the death of all the persons on board. But all these effects were merely incidental effects, and not necessarily resulting from these institutions; and they form no argument against the establishment of similar institutions.

In this section we shall consider—1. Relative Reasoning, or reasoning from the relation of the conditional cause and effect; 2. Hypothetical Reasoning; and 3. Reasoning by Dilemma.

1. Relative Reasoning.

This relation of conditional cause and effect is also denoted by the words antecedent and consequent. It admits of two correct modes of reasoning. First, from the non-existence of the antecedent we may infer the non-existence of the consequent. The antecedent is something which goes before; the consequent is something which follows after. But if there was no antecedent to go before, there could be no consequent to follow:—thus a man cannot lose what he never had. It was asserted that a banker had lost in his business 100,000*l.* of his own property; it was proved he was never in possession of that amount; and hence the consequent was disproved. So we may say,—The directors of the Royal British Bank could not have sanctioned the loan of 30,000*l.* made by the general manager to himself, for they knew nothing about it.—The joint-stock banks could not have been the cause of the pressure of 1825, for they were not then in existence.—The uncontrolled issue of country bank-notes could not have been the cause of the pressure of 1847, for the country issues had

been restricted by the Act of 1844.—We shall not be able to get a bank-draft on London in that town for there is no bank in the place. This mode of reasoning is called arguing from the denial of the antecedent to the denial of the consequent. But to guard against erroneous conclusions, we must be careful to observe that the antecedent and the consequent are so connected, that the removal of the antecedent would prevent the occurrence of the consequent. Thus the following propositions are fallacies:—As that bank does not allow interest on current accounts, it can never prosper.—As that tradesman does not keep a banker, he will never get rich. We may test these propositions by putting the argument in the form of syllogism. They both fall under the second rule of class reasoning (see page 292).

No bank that does not allow interest on current accounts can ever prosper;
This bank does not allow interest on current accounts:
Therefore, this bank can never prosper.

No tradesman who does not keep a banker will ever get rich;
This tradesman does not keep a banker:
Therefore, this tradesman will never get rich.

It will be seen that in both cases the conclusion is legitimately drawn from the premises; but in both cases the major proposition is untrue, and the conclusion is therefore unsound.

Herein is the difference between an efficient cause and a conditional cause—the existence of an efficient cause proves the existence of the effect: as,—If that bank should be well managed, it will prosper. The good management is an efficient cause of its prosperity. But the existence of a conditional cause does not prove the existence of the effect: as, —If he has the power of imitating the writing of another man, he will commit forgery. Here the cause is only a conditional cause; it is necessary to the production of the effect, but does not actually produce the effect. Hence, though the cause or antecedent may exist, the effect or consequent may not follow. But in both cases the denial of the cause would

lead to a denial of the effect. We may say,—If that bank should not be well managed, it will not prosper; and,—If he cannot imitate the writing of another man, he cannot commit forgery.

When a number of causes concur in the production of an effect, it is not always easy to say which of the causes should be regarded as the efficient causes, and which are merely the conditional causes. This is frequently the case in regard to historical events. For instance, we may ask, what was the cause of the introduction of joint-stock banks into England in the year 1826? Here we answer, the panic of 1825. But though this was the immediate cause which led to the effect, there were other antecedent causes, without the existence of which the effect would not probably have been produced. Among these causes we may mention the failure of the private banks in England, the prosperity of the joint-stock banks in Scotland, and the writing and exertions of Mr. Joplin. We may add the circumstance, that we had then a Government disposed to adopt changes and improvements in the commercial and economical administration of the country.

The second mode of reasoning from the relation of antecedent and consequent is, from the existence of the consequent to infer the existence of the antecedent. From the existence of any circumstance or event we can, of course, infer the previous existence of an efficient cause; but beyond this we can also infer the previous existence of all those conditions or circumstances which were essential to the working of that efficient cause. Thus, if we find a number of prosperous banks established in a wealthy country, we may infer that the wealth of the country is the efficient cause of the prosperity of the banks; but we may also infer that in that country there are laws friendly to the formation of banking institutions, and people who know how to manage them. So, if a forgery be committed, this consequence proves the existence of the antecedents; the person who committed it must have known how to write, and he must have had a pen or some other instrument with which the writing was made. So, if a small bank has become a large one, we may infer that the

banker is a clever man who understands his business; the talents of the banker may be regarded as the efficient cause of the prosperity of his bank; but we may also infer that he has been placed in circumstances friendly to the exercise of his talents, and that the absence of these circumstances might have prevented the growth of his bank.

We cannot reverse this principle any more than the last. We cannot say,—This man has not committed forgery, therefore he does not know how to write. The absence of an incidental consequent does not prove the absence of an antecedent. From "this man did not set his house on fire," we cannot infer that he was not insured; but from "this man was not insured," we may infer that he did not set his house on fire.

We may observe that a conditional form of expression does not necessarily denote a mode of reasoning from the relation of conditional cause and effect. It often denotes merely a doubt as to the existence of the efficient cause, or merely states a relation between two events or circumstances. Thus, —If the Bank of England should lose any more of her gold, she will raise the rate of discount.—If a country banker should exceed his authorized circulation, he will incur a penalty equal to the amount of the excess.—If the head office of the bank should stop payment, all the branches must stop too.

2. Hypothetical Reasoning.

An hypothesis is a supposition which, if true, would account for a number of facts or circumstances not otherwise capable of being accounted for. The following is an example:—

"When it became a question whether the Bank of France should suspend cash payments, it was impossible that the Government of France could any longer ignore the financial difficulties with which they were surrounded; and it is, therefore, quite in the course of things that M. Magne, the finance minister, should address an exposition of the commercial condition of France, nominally to his master the emperor, but really to the country at large, and to Europe. Yet we doubt whether this state paper—interesting as it is—will serve its purpose. In it we have, no doubt, a glowing description of the commercial prosperity of the country, of the growing increase of the exports over the imports, and of the impetus which has been given to both as compared with those of

former years. From all these data it follows that the country ought to be prosperous, and that money ought to abound. The facts of the case, however, stubbornly point in another direction; and how to account for the seeming paradox is the drift of the ministerial exposition. The recent inundations, and the failure in the silk crop, are both made the most of as agents; but, as if conscious that these of themselves are inadequate to explain the panic, the minister makes a bold plunge, and openly declares that the money is in the country, and must have entered into the general circulation. Here, we think, is the most alarming feature of the case.—It may be, and doubtless is, quite true that the money is in the country; but the facts of the case only too plainly show that it has not entered into the general circulation. It must, then, have been hoarded by its possessors; and in point of fact, *that hypothesis can only explain* how it happens that, amidst undoubted outward prosperity and a steady and long-continued influx of gold into the country, there should still be such a general scarcity."—*Christian Times,* Oct. 10, 1856.

An hypothesis must not be an indisputable truth. After the panic of 1825, it was stated that much of the evil had arisen from the circulation of one-pound notes. It was proposed, therefore, as a remedy, that one-pound notes should be abolished. Now this was not an hypothesis. It was obvious that no evils could result from one-pound notes, if one-pound notes did not exist. This was a self-evident proposition—a truth of intellect—that required not to be proved either by example or reasoning.

An hypothesis must not have been proved by experiment. When it was stated, previous to the establishment of the Bank of England, that a National Bank would be advantageous to the country, this was not an hypothesis; for national banks had been tried by other countries. The good effects they had produced in other countries was undisputed. The only question was, how far the circumstances of England, at that time, were similar to those of the other countries in which national banks had been advantageous! It was reasoning from example, not from hypothesis.

So, when, after the panic of 1825, joint-stock banking was introduced into England, to prevent a recurrence of similar evils, the opinion that joint-stock banks would prevent a recurrence of similar evils, was not an hypothesis. For joint-stock banks had existed for many years before in Scotland. It was reasoning not from hypothesis, but from example.

So, when, in the year 1804, a Committee of the House of Commons, appointed to inquire into the unfavourable exchanges that existed between Great Britain, recommended, as a remedy, that the Bank of Ireland should accumulate funds in London, and draw bills on London at a fixed par of exchange, this was not an hypothesis; for the same practice had for many years before been carried on by the banks in Scotland with the most beneficial effects. This was, therefore, reasoning from example; and twenty years afterwards, the Bank of Ireland adopted the practice.

The doctrine that the amount of notes in circulation in this country ought to rise and fall in exact correspondence with the amount of gold in the Bank of England, was an hypothesis. It was not a self-evident truth. It had not been tried by experiment. It was simply a supposition proposed as a remedy for evils that had been experienced from the administration of the currency under former systems. At length it was put into a practical form, and embodied in the Act of 1844. But, unfortunately, its efficiency was never put to the test; for the evils it was intended to prevent had arisen to so great a height in 1847 that the Act was suspended as the cure for those evils. It was, however, subsequently contended that the only, or at least the main object of the Act, was to secure the convertibility of the note; that is, to enable the bank at all times to pay its notes in gold. Whether the Act, if not suspended, would have effected even this object, cannot now be ascertained. The evidence of the witnesses examined before the Parliamentary Committees is conflicting upon the point. The doctrine, therefore, is still an hypothesis that has not been proved by experiment.

When a doctrine put forth as an hypothesis has been proved by experiment, it is no longer an hypothesis, but a principle. If, previous to the establishment of banks of deposit, any one had contended that a banker might receive sums of money from a hundred different people, repayable on demand, and meet all their demands by keeping a comparatively small sum in his till, and employ the remainder at interest so as to pay all the expenses of the establishment, and leave a handsome profit for himself, this would have been an hypothesis;

but when a number of such banks had been established sufficient to prove the truth of the hypothesis, then the hypothesis, thus demonstrated, became a fixed principle of the science of banking.

Those practical suggestions, made with a view of removing inconveniences or obtaining advantages, are seldom dignified with the name of hypotheses. Previous to the establishment of the clearing-house, it was suggested that bankers who resided near to each other might settle their accounts in one room; and instead of paying and receiving individually the sums due to and from one another, each debtor might pay the balance he owed to inspectors, who might distribute the sums then received among the various bankers who might be creditors. This plan was adopted, and is continued, with some variations, to the present day. But it may be questioned whether the original suggestion can be called an hypothesis. It was found, in former times, that travellers carried bank-notes—then called cash-notes—with them as more convenient than gold; and when robbed by highwaymen, as was then not unusually the case, the cash-notes being payable to bearer, could be put into circulation by the robbers. To prevent this it was suggested that the notes might be drawn payable to *the order* of the party obtaining them, and then, if not endorsed, they could not be passed by the robbers. Accordingly, bank post bills were issued in the year 1738. But, perhaps, the original suggestion could hardly be called an hypothesis. So it was suggested that if a cheque were crossed with the name of a banker, it would be a security to the party who might lose it, as it could be paid only through a banker; but this suggestion, though very useful, was not what we usually term an hypothesis.

Hypothetical reasoning is employed in the physical as well as in the moral science. It was an hypothesis, or a supposition, that the earth moved round the sun. It was found that, upon this hypothesis, the various appearances and movements of the heavenly bodies could be readily accounted for. Upon the hypothesis that the sun moved round the earth, they could not be accounted for. It was therefore inferred that

the earth moved round the sun. What was at first merely an hypothesis, was then regarded as a certainty.

Hypothetical reasoning is employed when we wish to refute the argument called proving too much. In this case we attempt to show that the argument, if justly applied to the case in question, might with equal justice be applied to some other case acknowledged to be doubtful. Thus, it has been contended that banks of issue should give to the Government security for their notes in circulation, upon the ground that the public ought to be secure. To this it has been replied: upon the hypothesis that banks should give security to the Government, for all their liabilities to the public, they should give security for their deposits as well as for their notes. Arguments of this kind are sometimes suggested in the form of interrogatories. If it be proper to allow the banks of Ireland and Scotland to issue notes beyond the certified amount, provided they have an equal amount of gold, why is it not proper to allow the banks in England the same privilege? If the Bank of England is allowed to issue notes in the country, why should not country banks be allowed to issue notes in London?

Sometimes this phraseology is employed sarcastically. Upon the hypothesis that it is the object of a joint-stock bank to lend money to its directors and managers, then the bank which has just stopped payment has been very successful. Upon the hypothesis that this banker intended to ruin his bank, he has certainly shown himself to be very clever. Upon the hypothesis that it would have been injurious to the country to permit the formation of banks having more than six partners, then the charter of 1708, granted to the Bank of England, was a very proper one. Upon the hypothesis that the engraver wanted to give every facility to forgery, he has certainly produced a most excellent note. Upon the hypothesis that the directors of country joint-stock banks believe that private banks are preferable to joint-stock banks, they are justified in employing private banks instead of joint-stock banks as their London agents. Upon the hypothesis that joint-stock banking is so much superior to private

banking, how do its advocates account for the fact that joint-stock banks have been established above twenty years in London, and yet they have not yet absorbed all the private banks?

Under the head of hypothetical reasoning may be classed circumstantial reasoning, or reasoning from circumstantial evidence. This kind of reasoning is much in use in our criminal courts. A man is accused of forging a cheque upon a bank. It is proved that he was a clerk to the customer whose name was forged, that the cheque was taken from his cheque-book, as appears from the printed number on the cheque, and that the prisoner had the means of access to this cheque-book. It is also proved that some of the letters in the forged signature are made in a peculiar form similar to those which the prisoner has written on other occasions; that immediately after the forgery the prisoner seemed to be in possession of plenty of money, which he said he had acquired by the sale of some property, which property it is found, upon inquiry, he never had; that he had suddenly left his employer's service, and when apprehended, had taken his place on board of a Liverpool packet for America under a feigned name, and had paid his passage-money in part with some of the notes which had been given in payment of the forged cheque. Now, upon the hypothesis that the prisoner committed the forgery, all these circumstances can be readily accounted for. And the question is, whether these circumstances are sufficient to prove the truth of the hypothesis? For if the circumstances brought in evidence against a prisoner *can be accounted for on any other supposition* than his guilt, he is entitled to an acquittal. The evidence must prove not merely that he may be guilty, but that he must be guilty. The circumstances adduced must be wholly incompatible with any supposition that he is innocent, and incapable of explanation upon any other hypothesis than that of his guilt. The conclusiveness of circumstantial evidence depends not upon the force of any one circumstance, but upon the strength of the whole combined. For although we may assign other causes for any one of the circumstances sepa-

rately, we are not able to assign sufficient causes to account for them all except on the supposition that the prisoner is the man who has committed the crime.

We argue from hypothesis when we investigate the future, and attempt to show that under certain circumstances evil effects may possibly arise from institutions that are in themselves good. Thus, we find that the deposit system of banking is highly advantageous in a country, but it may be attended with some temporary inconvenience in a state of alarm and panic. The effect of the deposit system is to increase the amount of the deposits and to reduce the amount of the notes in circulation. In time of panic the depositors demand their deposits, and require payment in notes. But the deposits are large, and the notes are few, and besides, the depositors wish to hoard these notes, not to pay them into other banks. In this case a sufficient amount of notes cannot be obtained, and the most wealthy bank may stop payment. This is an incidental effect of the deposit system of banking. In the year 1847, the banking department of the Bank of England must have stopped payment had the public required immediate payment of all their deposits. It would have been singular for a bank to stop payment for want of an ample supply of her own notes.

Sometimes we, in the same way, speculate on the past. We ask if the events that have transpired had been associated with other conditions, or had happened under other circumstances, what would have been the effects at the present time? Thus:—If the gold mines of California and Australia had never been discovered, could the Act of 1844 for regulating the issue of bank-notes have been permanently maintained? If the Chancellor of the Exchequer, during the recent Russian war, had raised all his supplies by taxes instead of loan, would our army at the end of the war have been as efficient as it was? If the Bank of France had issued twenty-franc notes when her silver was first drained for exportation to the East, would she have avoided a pressure for gold?

Hypothetical reasoning may be erroneous in various ways.

The hypothesis may be false; it may either have no existence, or it may have no influence in producing the effects ascribed to it. Thus the unfavourable course of the foreign exchanges, and the consequent drain of gold from the Bank of England in the year 1836, was attributed by the directors and writers of that time to the excessive issue of country notes. And the changes that take place uniformly through every year, in the amount of notes issued by the country banks, and the banks of Scotland and Ireland, were accounted for upon the hypothesis that every banker could extend or contract his circulation of notes according to his own caprice. The pressure of 1825 was ascribed to the issue of small notes; but pressures have occurred in the years 1836, 1839, and 1847, when no small notes were in circulation.

Sometimes an hypothesis is assumed as the sole cause of effects which it is wholly inadequate to produce. Thus the pressure of 1847 was ascribed to the great speculations in railways which had occurred in the years 1845 and 1846. Granting that these speculations may have contributed to this effect, other causes must also have concurred in producing such extensive results. This hypothesis in regard to railways has, however, been adopted by those who are unwilling to admit that the Act passed in 1844 for regulating the issue of bank-notes either caused or increased the pressure of the year 1847.

We are sometimes in danger of attempting to prove the truth of an hypothesis, without first having ascertained the certainty of the facts for which we are to account. We all recollect the question put by King Charles II. to the Fellows of the Royal Society: Upon what hypothesis can you account for the fact that when a live fish is put into a vessel of water, the vessel will weigh no heavier than before? The same mode which was adopted in the solution of the above question —that of first ascertaining the truth of the facts—should also be adopted with regard to the following:—How can you account for the fact that some of the failures of the joint-stock banks have been as bad as the worst failures of the private banks? How can you account for the fact that,

notwithstanding the Act of 1844, the Bank of England was as near stopping payment in 1847 as in 1839? How can you account for the fact that those reviews of books on banking, which appear in our daily and weekly newspapers, are better written and show more knowledge of the subject than those reviews which appear in periodicals that are exclusively literary?

3. Reasoning by Dilemma.

A man is in a dilemma when he has two courses of action, and only two, before him, and each is attended with some inconvenience. Take the following example:—A banker may reason thus with himself. I wish this application had not been made. Here's an application for a large loan from a man who is reported to be wealthy; but who, I believe, will lose the money and ultimately fail. If I do not grant the loan, he will probably remove his account, give me an ill name, and by his influence damage my interests. If I do grant him the loan, he will afterwards ask me for more. I shall be drawn in for a large advance; then he will fail, and I shall suffer loss. Now what had I better do? Here is a dilemma.

A dilemma has been called a conditional syllogism. It states two supposed lines of conduct, and the effect of each line of conduct is pointed out. The proposition which states these two lines of conduct is called the major proposition. The propositions which trace the effects of these two lines of conduct are called minor propositions. And then from the view of these two minor propositions we infer the conclusion. Thus:—

I must either keep my money in the house, or lodge it in a bank.

If I keep it in the house, thieves may break in and steal it.

If I lodge it in a bank, the bank may fail, and I may lose it.

Therefore, in either case, I am in danger of losing my money.

Dilemmas are divided by logicians into various kinds; but these divisions depend chiefly upon the arrangement of the words. We shall illustrate the nature of dilemmas by showing their various applications in reference to banking.

Question.—What amount of salary shall we offer to the gentleman that we are desirous of obtaining as manager?

If it be for the interest of the bank that he should become the manager, we ought to offer him such a salary as he would be likely to accept. If it be not the interest of the bank that he should become the manager, we ought not to make him any offer at all. Therefore, if we make him any offer at all, we ought to offer him a liberal salary.

Question.—Is it desirable that a bank should have auditors?

In auditing a bank account, the auditor must either confine himself to ascertaining that the published balance shall correspond with the bank-books; or he must also ascertain the validity of the securities which the bank holds. The former mode is useless, the latter is impossible. Bank auditors ought not, therefore, to be appointed.

Question.—Do the existing shareholders in a bank get any advantage from the surplus fund?

You must either keep the shares until the fund is divided, or sell them before it is divided.

If you keep the shares until the fund is divided, you will have your share of the fund when it is divided.

If you sell the shares before the fund is divided, you will have the value of your share of the fund in the increased price you will get for your shares.

Therefore, whether you keep your shares or sell them, you will get your portion of the surplus fund.

Question.—Should books on banking be advertised?

You must either advertise your book, or not advertise it.

If you do not advertise it, it will not be known, and you will lose the money expended in its production.

If you do advertise it, the cost of the advertisements will be more than all the profits on the sale.

Therefore, whether you advertise it or not, you will lose money by your book.

Question.—Is this bill an accommodation bill?

If this be an accommodation bill, it must be drawn for the accommodation of either the drawer or the accepter.

It is not likely to be drawn for the accommodation of the accepter, as he is too wealthy to need such accommodation.

It is not likely to be drawn for the accommodation of the drawer, as the accepter is too prudent a man to give him the accommodation.

It is not likely, therefore, that this bill is an accommodation bill.

Question.—Is a banker justified in closing a customer's account under the following circumstances?

A party stated that a cheque purporting to be drawn by him was a forgery. The banker believed it to be genuine.

The banker was compelled to bear the loss. He then closed his customer's account. The customer complained; but the banker used the following dilemma:

Either this cheque is a forgery, or it is not.

If it is a forgery, then some party can forge my customer's signature in such a way that my clerks cannot detect the difference; and hence the account is not desirable.

If it is not a forgery, then my customer does not know his own signature, and may again disown his handwriting, and hence the account is not desirable.

Whether, therefore, the signature is a forgery or not, the account is not desirable.

Question.—Ought the bank to give loans without security?

A customer desires to borrow a large sum of money without giving any security.

He is either a man of property, or not.

If not, he has no right to ask for a loan without giving security, as he is not a sufficient security in himself.

If he is a man of property, he can easily give security, and

has, therefore, no right to ask for a loan without giving security.

Whether, therefore, he be a man of property or not, he has no right to a loan without giving security.

Question.—Would a suspension of cash payments relieve France from her present difficulties (Oct. 1856).

The present difficulties have arisen from one of two causes :—

1. A great demand for bullion to meet foreign payments.
2. The hoarding of gold by the citizens.

A suspension of cash payments would not diminish the demand for gold to meet foreign payments.

A suspension of cash payments would not diminish the disposition to hoard.

Therefore, a suspension of cash payments would not relieve France from her present difficulties.

"A dilemma," says Dr. Watts, "becomes faulty or ineffectual in three ways. First, when the members of the division are not well opposed or not fully enumerated, for then the major is false. Secondly, when what is asserted concerning each part is not just, for then the minor is not true. Thirdly, when it may be retorted with equal force upon him who utters it."

We shall give examples of each of these errors.

First.—This banker is either a rich man or a poor man. Here the facts are not fully opposed; he may be a man of moderate property, neither rich nor poor. This clerk writes a good hand or a bad hand. Not so, he may write an indifferent hand, neither good nor bad. The capital of a bank can be increased only by the issue of more shares, or by making a call upon the existing shares. Here the parts are not fully enumerated. There is another way of increasing the capital, that is, by adding to it a portion of the surplus fund.

Secondly.—This bank will either call up more capital, or it will not. If it call up more capital, it will offend its shareholders. If it do not, it will lose the public confidence, and

its business will diminish. Therefore, it must either offend its shareholders, or lose a portion of its business. Here what is asserted of the minor propositions may not be correct, and if either be incorrect the conclusion will be erroneous. A bank of issue in Scotland will either exceed its authorized circulation, or it will not. If it exceed its authorized issue, it must keep an amount of gold equal to the surplus, and hence this portion of its circulation can yield no profit. If it do not exceed its authorized circulation, it must keep down its circulation by restricting its business. Therefore, it must either restrict its business, or get no profits by its extension. These minor propositions may not be strictly correct.

Thirdly.—A dilemma may be retorted upon the party who utters it. Take the following examples:—

A bank is either successful or unsuccessful. If a bank be unsuccessful, the manager ought not to have a high salary, as the bank cannot then afford it. If a bank be successful, the manager ought not to have a high salary, as his anxiety then is less than when the bank is not successful.

Therefore, whether a bank be successful or unsuccessful, the manager ought not to have a high salary.

This dilemma may be retorted.

The bank is either successful or unsuccessful. If a bank be successful, the manager ought to have a high salary, as the bank can then afford it. If a bank be not successful, the manager ought to have a high salary, as his anxiety then is greater than when the bank is successful.

Therefore, whether a bank be successful or not successful, the manager ought to have a high salary.

The interest on exchequer bills is always either higher or lower than the interest on commercial bills.

No banker should purchase exchequer bills when the rate of interest is higher, because then he will have to give a higher premium;

Nor when it is lower, for then he could employ his money more profitably.

Therefore, whether the rate of interest on exchequer bills

is either higher or lower than that on commercial bills, no banker ought to purchase them.

This dilemma may be retorted thus :—

The interest on exchequer bills is usually either higher or lower than that on commercial bills.

When the rate is higher, every banker ought to purchase them, for he then gets a higher interest for his money.

When the rate is lower, every banker ought to purchase them, because they are then at a lower price in the market.

Therefore, whether the rate of interest on exchequer bills is higher or lower than that on commercial bills, every banker ought to purchase them.

A dilemma has only *two* alternatives, and hence we hear of the *horns* of a dilemma. When the major proposition has three or more alternatives, it is called a trilemma. The following are examples :—

A bank can increase its capital only by making calls on its shareholders, or by accumulating a surplus fund to be afterwards added to the capital, or by issuing new shares at less than the market price. If the directors make further calls, the shareholders are dissatisfied, because it is inconvenient to pay them. If a surplus fund is accumulated, the shareholders are dissatisfied, because they receive a less amount in dividends. If they receive new shares at less than the market price, they are not dissatisfied, because, if they cannot pay for them, they can sell them at a premium in the market.

Therefore, the only way in which the capital of a bank can be increased to the satisfaction of the shareholders, is by a distribution of new shares at less than their market value.

There are three ways of increasing the efficiency of a board of directors. First, by increasing the number of its members; secondly, by the retirement of the less efficient members, and the election of others; thirdly, by inducing all the present members to attend more constantly to the duties of their office.

Sometimes we enumerate three courses of action, in order to show that only one can be adopted. A bank must give its

clerks too low a salary, or too high a salary, or a salary which is neither too low nor too high. It is not just to give them too low a salary. It is not wise to give them too high a salary. It is best, therefore, to give a salary which is neither too high nor too low.

Sometimes we enumerate all the ways of action, to show that none can be adopted. This bank can be prevented stopping payment only by the re-discount of bills, by borrowing money upon its security, or by the assistance of the Government. But it has not bills to re-discount, its securities are of such a kind that no one will lend money upon them, and the Government will render no assistance. The bank, then, must stop payment.

Sometimes we enumerate three courses of action, in order to trace the effect of each; and then to make a comparison between their respective merits. Thus, in framing a new bank, the deed of settlement may provide that the government shall consist of a board of directors and a manager, the board meeting once a week, and the bank in the meantime being under the sole government of this manager; or of a board of directors—two managing directors and the manager constituting the executive administration; or of a board of directors—a number of whom should, in rotation, form a daily committee for the superintendence of the daily operations of the bank. The adoption of one or other of these modes of government, in preference to the other two, might become the matter of much argumentation, and these arguments might take the form of a trilemma.

We may wish to show that an effect must have resulted from one of three causes. We prove that it has not been caused by either of two of these causes, and then we infer that it was caused by the third. Thus:—

This bank has failed through the conduct either of its shareholders, or its customers, or its directors.

But it has not failed through the conduct of its customers.

It has not failed through the conduct of its shareholders.

Therefore, it has failed through the conduct of its directors.

A trilemma may have two faults; one of enumeration, the

other of distribution, both of which are exhibited in the above example.

The enumeration may not be complete. In the above example, the bank may have failed from the conduct of its manager, and yet he is not mentioned.

The fault of distribution is, when we attribute solely to one or other of the causes enumerated, what is not the effect of any one separately, but of more than one or of the whole conjointly. Thus, in the above example, this bank may have failed through the directors and the manager, or through the directors, the manager, and the shareholders, or through all the parties mentioned.

SECTION VII.

THE RELATION OF FINAL CAUSE AND EFFECT APPLIED TO BANKING.

Motives are the causes of actions. A final cause is the object or design with which a thing is done. The same thing may be performed from different motives, and hence have different final causes. One man puts money into a bank for the sake of security—another in order to obtain interest. Every mental feeling may give rise to an action, and may be regarded as the final cause of that action. In some cases, the gratification is the only object sought to be attained. Thus a banker may discount a bill to oblige his friend, though the bill, as a matter of business, would not be discountable. Not only the intellectual faculties and the social feelings, but also the acquired attainments of the mind, are causes of actions, or of a series of actions. Thus we may say, the knowledge and experience that a manager obtained in a former bank, are the causes of his managing his present bank so successfully. The whole of the mental powers, and feelings, and attainments, may therefore be taken into consideration under this section of our work, so far as they produce effects connected with the principles and operations of banking.

After we know from intuition, experience, or observation, that certain causes and effects are inseparably connected, we may, from the existence of the cause, infer the existence of the effect; or from the existence of the effect, infer the existence of the cause. Thus if, in banking, we have found that good management is connected with success, we may say that bank is well managed, therefore it will be successful; or that bank has been successful, therefore it has been well managed. But the connexion of cause and effect is not always so obvious, nor so constant; and human character is so subject to change, and human feeling is so uncertain, and human virtue is so frail, that it is not always easy to trace the motives by which certain actions are produced. When a customer brings to his banker a bill for discount, and assures him it is not a kite, but is drawn against value, it is not always easy to know whether the party speaks the truth. When a merchant fails, and offers his banker 10*s.* in the pound, it is not always easy to ascertain from the balance-sheet (if, indeed, he has the politeness to show a balance-sheet), whether his failure is the result of misfortune or of fraud. These cases furnish abundant occasion for logical investigation.

The present section, therefore, treats of motives and actions as applied to banking. We shall treat of the subject in reference:—1. To the acts of the Legislature, or decisions of courts of law. 2. To the prices of commodities. 3. To banks and bankers. 4. To bank-officers.

1. The Acts of the Legislature, and Decisions of Courts of Law.

When we speak of the *intention* of an Act of Parliament, we mean, of course, the intention of the Parliament in passing that Act. We infer the intention of an Act from the occasion on which it was passed—from the avowed opinions of the parties who introduced and supported it—from its preamble, and from the character of its principal enactments. Having thus, as we think, ascertained the intention of the Act, we use this intention to ascertain the meaning of some of its obscure or disputed enactments; for all the provisions of

an Act must be in conformity with its intention. Sometimes the intention of an Act is employed as an argument for introducing a Supplementary Act to carry out its supposed intention. Thus, the Bank Charter Act of 1833 authorized the establishment of joint-stock banks in London. It was maintained that, as the Legislature had thus authorized the formation of such banks, it must have been its intention to grant to these banks the ordinary facilities for carrying on their business. Hence the London and Westminster Bank—the first bank formed under the Charter Act of 1833—brought a bill into Parliament, in the year 1834, to obtain the right of suing and being sued by their public officer. This power had been exercised from their commencement by the joint-stock banks located beyond sixty-five miles from London, and was the only way in which banking by public companies had been carried on. The bill passed through the House of Commons, in opposition to the Government, but was stopped in the Lords.

Decisions of courts of law have also their intentions, and there are often disputes as to the cases to which any particular decision was intended to apply. The reasoning is usually from the relation of genus and species, or from analogy. The question is, whether the decision which has been given upon one case is not attended to apply, or may apply, to all cases of the same kind, and also to cases which, though not exactly of the same species, are very similar, and can be shown to rest upon the same kind of reasoning. Sometimes the previous chain of argumentation before the court, or the language of the judges in pronouncing judgment, may indicate this intention. In other cases, there are no means of gathering the intention of the court, and the argument rests entirely upon the similarity between the adjudged case and the one sought to be decided. In the process of reasoning, the adjudged case is technically called "a case in point."

2. The Prices of Commodities.

A state of mental feeling is often a connecting link between a cause and an effect. It has been contended by

political economists of high standing, that an increase in the currency of a country causes a general advance in the prices of commodities. The late Mr. Hume collected, from public documents, a great number of facts, showing the correspondence that had existed between fluctuations in the circulation of Bank of England notes, and fluctuations in prices, chiefly with reference to the prices of the public funds. Lord Overstone stated "that the connexion between fluctuations in prices and variations in the amount of the circulating medium, is a question of extremely difficult solution in detail;" but "unless this connexion be admitted, the whole doctrine of regulating the circulation by reference to the state of the exchanges falls to the ground."

But this effect is produced only when the increased currency has produced in the public mind an increased desire of buying. It is the increased demand which advances the price. And if this increased demand should become a speculative demand, then prices will become speculative prices. When the increased quantity of money does not produce any feeling on the public mind, as is sometimes the case, then prices will not be affected. The error of these writers consists in supposing that money acts upon prices mechanically, and that the effect is immediate, necessary, and universal; and they take no account of the intermediate mental feelings by which they were connected: and the application they made of this doctrine was, that as every importation of gold increased the amount of the currency, it necessarily raised the prices of all commodities; that in consequence of these advanced prices, our exports diminished, our imports increased, the foreign exchanges became unfavourable, the gold was again exported; then the currency being again diminished, the prices fell, and then we went on as before. In this ingenious piece of mechanism, the mainspring is the alteration of prices, produced by alterations in the currency.

Mr. Tooke denied the truth of this doctrine, but fell into a different error. Finding from statistical inquiries that the prices of commodities could generally be accounted for by mental feelings, or calculations respecting the articles them-

selves, he rested here; and having found an adequate cause, he did not admit that these mental feelings were either produced or stimulated by the abundance of money. The view we took of this question, when it occupied public attention, is thus expressed in our pamphlet, "Plans and Principles for regulating the Currency."

"Fluctuations in the currency can produce no physical effects without, in the first instance, producing a moral effect. Money always operates, in the first instance, by producing a moral effect; by a moral effect, we mean an effect upon the minds of men. Abundance of money makes men buoyant, sanguine, and enterprising, and hence they go into speculation. On the other hand, a scarcity of money makes men timid, cautious, and apprehensive, and hence they prepare for the worst that can come upon them. In consequence of these mental affections, fluctuations in the currency often produce greater effects than the mere amount of the fluctuation would lead us to expect. Speculators and merchants have always some peculiar reason for dealing in one commodity rather than another; but the facility of obtaining the money is the moving cause of the speculation, and the price of each commodity will advance according to the quantity of money that is brought to bear on that particular market."

3. Banks and Bankers.

In matters of business, men are generally supposed to be influenced by a desire to promote their pecuniary interest. When new banks are established, they sometimes introduce new principles adapted to promote the advantage of the public. When the first joint-stock bank was opened in London, it introduced the practice of allowing interest on deposits. The joint-stock banks subsequently opened followed the same practice. When these banks were young, and the rate of interest was low, their deposits were not large; but now the banks are strong, and the rate of interest is high. We will point out the effects of this:—At the present time (November, 1856), the minimum rate charged for discount by the Bank of England is seven per cent.; all the London joint-stock banks allow six per cent. on deposits; hence parties who have current accounts with the Bank of England, or the private banks, who give no interest, will reduce their balances, and place the money at interest with

the joint-stock banks. Some country banks will do the same, and individuals in the country, as well as in London, will place their spare money to get this high rate of interest. Let us trace the effect of this. The object of the Bank of England in raising her rate of interest to seven per cent., is to prevent the exportation of her gold. The joint-stock banks, by allowing six per cent, and charging seven, co-operate with the Bank of England in producing and maintaining a high rate of interest throughout the community. At the same time, by gathering all the available money in the country, and employing it for short periods, either as loans on Government securities, or in discounting commercial bills, the joint-stock banks protect the commercial interests and the community against the evil effects that might otherwise arise from the measures of the Bank of England. In former seasons of pressure, those who had property in the public funds, and wanted money, were obliged to sell; and hence the prices of stock fell. Merchants who wanted money sold their goods at a loss ; and hence prices of goods fell—or, if they could not sell nor get their bills discounted, they failed. But now the large deposits in the joint-stock banks become an available and an increasing fund for the protection and relief of these parties. An analysis of the operations will show this more clearly :—The Bank of England, to prevent the exportation of gold, advances her rate of interest on discounts and loans, and perhaps introduces other restrictions, such as limiting the dates of the bills to be discounted, and declining all advances on Government securities. Then parties who have occasion for this accommodation become embarrassed. But the joint-stock banks now raise their rate of interest allowed on deposits to one per cent. less than the minimum rate charged by the Bank of England. This brings increased deposits to the banks; but they are taken for only a short period. The banks would not take them at a high rate of interest for a fixed long period, as they know not how soon the Bank rate might be reduced again. As they receive the deposits for short periods, they can employ them for only short periods. The only way of

thus employing them is either by lending them on the Stock Exchange, or in discounting short bills, either directly for the party themselves, or through the means of the bill brokers. Thus, support is granted to the very parties whom the restrictions of the Bank of England will most severely affect. Hence it is that, in the present pressure, there is neither calamity nor complaint.

In the controversy that took place a few years ago about Banks of Issue, it was contended that all bankers that issued notes were anxious to issue as many as they could, and that the effect was an excessive issue of bank-notes. To this it was replied that bankers did not wish to issue more notes than they could maintain in circulation, for experience had shown that, when they exceeded this amount, the notes came back against them on the exchanges with other bankers, and they had to pay them in cash, or by a draft on their London agents. It was also contended that this competition in the issue of notes did not lead to excess—for while each banker wished to issue as many notes as he could maintain in circulation, he wished also to withdraw from circulation the notes of all other bankers; and hence competition tended to keep down the circulation to its proper and legitimate amount.

In the discussions that took place with reference to the introduction of joint-stock banks into London, there was also a reference to motives or final causes. A bank director, it was said, could not act with so much caution as a private banker, inasmuch as the bank directors dealt with other people's property, and the private banker dealt with his own. A bank manager, it was said, could not feel so much zeal for the success of his bank as a private banker, inasmuch as the manager had no share of the profits, and the private banker had all the profits to himself. In reply to these observations, it may be asked whether people who deal with their own money are always more cautious than those who deal with other people's money; and whether the circumstance of having all the profits to themselves is likely to increase their caution. It may farther be asked whether intense zeal is

not likely to exceed the bounds of prudence, and thus be injurious to the bank. And it may also be asked whether a manager, whose salary increases as the bank may prosper, is not as likely to be as zealous as it is for the interest of the bank that he should be.

As all actions are morally right or wrong, according to the motives from which they proceed, it is proper to place under the relation of final cause and effect those proceedings of a moral character that have a reference to banking. I have, in my 'Practical Treatise on Banking,' stated my opinions with reference to the moral and religious duties of public companies, so far as regards their relations to other parties; but I have not stated the particular duties of directors, officers, or shareholders. With regard to the duties of directors towards shareholders, there is often much discussion. Some conscientious directors think they have no right to give away the money of the shareholders, as they call it, in donations to charities or objects not necessarily connected with the direct interest of the banks. Hence, in the list of subscribers to the Irish famine, to the fire at Hamburg, the patriotic fund for the relief of the soldiers who suffered in the Crimea, and to the French inundations, we did not observe the names of some of the London joint-stock banks. Directors, as we conceive, are not the servants but the governors of the bank. They have a right to do whatever the shareholders as a body ought to do. They represent the bank, not as a commercial agent represents his principal, or as a lawyer represents his client, but as an elective monarch represents the people that he governs. Public companies are not exempt from the duties of patriotism, benevolence, or religion, any more than individuals, and it is for the directors to decide in what special cases those duties ought to be performed.

It is of importance that a banker should have a knowledge of the character of his customers, with their moral and intellectual, as well as with their business character. An upright man will act uprightly—he who does not act uprightly is not an upright man. These are the two principles

of reasoning, founded on the relation of final cause and effect; but human character is compounded of different, and sometimes of opposite, principles. And it behoves a banker to be wide awake in dealing with his customers, so as to be able to judge in what way they are likely to deal with him. Some men are upright in their moral principles, but slovenly and imprudent in matters of business—others are good men of business, but have no honest principles. With some men their word is their bond—others speak the truth only when they intend to deceive. The representations or promises of men on the verge of failure can never be relied upon. Men in their circumstances will make the most false statements to their banker, in order to obtain advances which would not have the slightest effect in saving them from ruin. It is charitable to suppose that in these cases the intellect has become affected, and they are not at the time aware of the folly and fraud of their conduct. Experience of mankind is experience of the weakness and dishonesty of mankind in their pecuniary transactions. The history of insolvency is the history of fraud. It is no longer the practice for a trader, when he finds himself insolvent, to call his creditors together and divide among them what remains of his capital, and afterwards to endeavour by industry and frugality to make up the deficiency. Though conscious of his hopeless condition, he does not stop payment until he is unable to meet his daily liabilities. In the meantime he endeavours to postpone this period by getting his friends to accept accommodation bills—by buying goods on credit and selling them on lower terms for ready money—by engaging in reckless speculation, and by soliciting advances from his banker. At length he calls his creditors together, shows a balance-sheet prepared by a professional accountant, showing that his estate can barely pay 2*s.* in the pound. But he states that, with the assistance of his friends, he will pay 3*s.* in the pound, provided he gets an immediate release; but if they do not take this proposal, they will get nothing, as he must go into bankruptcy, and the assets will not be more than sufficient to work the commission. The creditors make the best of a bad

job, and accept the proposal. The insolvent again commences business, and goes on in the same reckless course as before.

A banker is often at a loss to know how he should act on such occasions. He is asked to sign the release—he hesitates. He believes the man a fraudulent swindler, or at least a reckless speculator. He naturally wishes that such a character should be punished—and, as a banker, he is desirous that such practices should be checked by the honest indignation of the commercial world. He throws aside the balance-sheet, and exclaims, "No, I will not sign." But he finds that the insolvent has already obtained the requisite number of signatures from his creditors to give him his release. The refusal of the banker to sign will not punish the culprit. Other parties as respectable as the banker have signed, and he is solicited by parties whom it is his interest and inclination to oblige. The banker hesitates—and hesitates—and hesitates. At length he too joins with others in sanctioning a balance-sheet that he believes to be a fraud, and in again turning loose upon the commercial world a man that he believes to be no better than a thief.

4. Bank-officers.

As actions are the effect of mental qualities—in proportion as a man is qualified for an office, in such proportion will he properly perform the duties of that office. Hence, before a banker's clerk is appointed, inquiry is made into his qualifications. It is necessary that he should be in good health, and also have a firm belief that he is in good health. A young man who has a fond mother and kind sisters, ever ready to persuade him not to go that day to the bank, but to stay at home to be nursed, telling him that his health is bad, and the weather is cold, his constitution is weak, and the work is hard, had better find some other employment in which his tender frame shall not be exposed to the inclemency of the seasons. The literary attainments necessary to becoming a bank clerk are very small indeed. If he can write a fair hand, and can perform expertly the first four

rules of arithmetic, he possesses all the qualifications that are strictly necessary, and many are appointed who are deficient in both these respects. But the office requires a certain degree of mental power—not indeed of the highest order, but yet far from the lowest. A readiness in performing the simple operation of adding and subtracting is often not possessed even by young men who have received a classical education. Young clerks are not seldom dismissed for inaptness in this respect. The superior of the office can assign no other reason for their deficiency than that they are "intolerably stupid," and yet they may not be stupid in anything apart from figures. Dr. Robertson observes, that the degree of civilization in any nation may be measured by its knowledge of arithmetic. Savages can seldom count above ten, but as their minds expand, their skill in numbers increases. In like manner the performance of arithmetical operations with dexterity in a bank requires a peculiar adaptation of mind, which may or may not exist with dexterity in other mental attainments. The practical application of this doctrine is, that a clerk may be a good ledger-keeper, and not a good cashier, and a good accountant may not become a good manager.

To enable a banker's clerk to perform his duties efficiently, it is necessary, not only that he have the mental qualifications for the performance of those duties, but also that he have the disposition and inclination to perform them. This involves the question of salaries. No man will work well if he works with reluctance; and every man will work with reluctance if he thinks he is underpaid for his work. Every bank, therefore, should establish such regulations with regard to salaries and promotions as shall leave the clerks without any just reasons for dissatisfaction. In large establishments the best arrangement appears to be to divide the clerks into several classes, according to the character of the employments, to assign to each class a scale of salary proportionate to its relative importance—to let each clerk commence with a minimum amount of salary, to advance by a fixed amount every year until he reaches a maximum. In each class the

promotion to be by strict seniority. So far good. We are able by this arrangement to place each young man in the department for which, from his mental organization or his literary attainments, he seems to be best adapted—whether it be the accountant's, the cashier, the corresponding, or any other department. And as the increase of salary is by a fixed scale, and the increase of rank by removals, there is no room for any discontent or accusations of favouritism or patronage. But we want something more than this. It is desirable that the most talented men should be placed in the most important posts, and that they should reach these posts in the prime of life, and by a process of training that should qualify them for the performance of their important duties. But this can hardly be obtained by a system of seniority. The governing power in the bank must therefore exercise a discretion in removing individuals from a routine class to a more intellectual class, and of filling up certain posts not with reference to seniority, but solely with reference to the ability and suitableness of the party appointed. All the principal officers of the bank should be thus trained and selected; but they should invariably be taken from the working classes in the establishment, and be of such acknowledged talent that there can be no ground for suspicion of patronage or favouritism. It is a sad discouragement to the intellectual portion of the clerks to perceive that the prizes at which they aimed, and for which they laboured, are after all not given to the best qualified and the most deserving.

Among the questions that have a reference to the feelings of the mind, we may place those that regard courtesy and politeness. It may be supposed at first sight that such questions have but little connexion with banking; but, in fact, boards of bank directors have sometimes to discuss with much gravity questions of this description. No complaint is more frequently made by customers or the public against bank clerks than a want of politeness. No complaint can be more readily made—none more difficult in many cases either to prove or to refute—and none upon which there is usually a greater contrariety of evidence. The clerks most exposed

to this accusation are the cashiers, as they come most in contact with the public. Nothing tries a man's patience more than being detained a long time at the counter waiting to get payment of a cheque. He naturally becomes petulant—attributes the delay to the slowness or inefficiency of the cashier—addresses him in short language, and is perhaps answered shortly in return—says that he has been insulted, and immediately sends a letter of complaint to the directors. The directors, justly considering that all their officers should be courteous to the public, enter into the investigation of the charge, and perchance a very logical discussion takes place upon the necessity and the principles of banking politeness.

We believe it to be a fact that these charges are usually made by parties who are not themselves remarkable for urbanity. It has been said that if you tell a man that he is no gentleman, that proves you are no gentleman; for though what you say may be true in reference to the party you address, yet if you were a gentleman you would not tell him so. Accusations of a want of politeness are often proofs of a want of politeness in the party making the accusation. A readiness to take offence when no offence is intended is not the attribute of a gentleman; and a person whose own conduct is free from rudeness has seldom reason to complain of the rudeness of others. The charge often arises from an irritable temper—a low opinion of the social position of the accused party—a spirit of self-importance—or a desire to get credit for the possession of that politeness of the want of which he complains in others. A cheap way of getting credit for any virtue is to accuse other people of the want of it. Charges arising from such dispositions should be entertained with caution; and the services of a valuable officer should not be disparaged, nor his mind disturbed, through undue importance being given to petty accusations. It is a mistake to suppose that our banks can be exalted in public estimation by degrading the persons by whom their affairs are administered. There seems to be no reason why the officers of a bank should not be treated with as much respect

as the officers of the army or the navy, or any other class of public functionaries.

When an officer of the bank has acted decidedly with impropriety, and it is necessary that he should be admonished, he should always be admonished as a gentleman. None but a gentleman can administer reproof to a gentleman. It is the sharp razor that makes the closest shave, and yet leaves no wound. When, therefore, it becomes necessary to administer official reproof to a valuable officer or to a number of officers, the duty should be assigned to that director who is most remarkable for the urbanity of his manners; and a different course should not be adopted in cases where the admonition is all the punishment properly incurred, and where it is substituted for a heavier punishment than might with propriety be inflicted. Acts of forgiveness lose all their effect when they are not performed with a grace. When an offence is described in the strongest language of vituperation, and immediately afterwards forgiven, the culprit is likely to recollect more vividly the harshness of the censure than the enormity of the crime. If, he may say to himself, this act is really so heinous, why do they forgive me at all? but if my past conduct has really been so exemplary as to induce them to do so, might it not also have suggested a little more moderation in the tone of reproof?

PART VI.

THE APPLICATION OF THE SECOND CLASS OF THE PRINCIPLES OF REASONING TO THE ART AND THE SCIENCE OF BANKING.

THE second class of the Principles of Reasoning, as we have stated at page 121, are,—1. Reasoning from Examples. 2. Reasoning from Analogy, Comparison, and Contrast. 3. Reasoning from Parables, Fables, and Proverbs. 4. Reasoning from Written Documents. 5. Miscellaneous Reasonings, or as we have called them, Series of Reasonings. In this part of our work, we propose to consider the application of these principles of Reasoning to the Art and the Science of Banking.

SECTION I.

REASONING BY EXAMPLES APPLIED TO BANKING.*

THE word Example is employed in two senses; we say, "for example," when we adduce a fact that proves or illustrates any principle or observation that we have advanced. Thus we may say, Banking institutions are of great advantage to the community, in granting facilities for the transmission of money. *For Example,* a tradesman in a country town may wish to send money to London in payment of some goods he has purchased there; and if there is a bank established in his town, he can do this with the greatest facility. We used the word Example also to denote—a model worthy of imitation, or a model to be avoided; as, That bank has prospered in consequence of constantly refusing to make advances upon

* We advise the reader before commencing this Section, to read again the Section on Reasoning from Example, at page 121; and the Section on Inductive and Deductive Reasoning, at page 257.

dead security. Here is an example to be imitated. The other bank came to ruin by making advances upon collieries. Here is an example to be avoided. Both these forms of reasoning are called "Reasoning by Example." The following rules should be observed:—

In reasoning by example, we should be able to prove that the examples we adduce are events that have actually occurred, or facts that actually exist. If the alleged facts can be disproved, the argument built upon them is overthrown. If they can be rendered doubtful, the argument is proportionably doubtful. Thus if it be said, that bank made great losses, through advances upon railway debentures, and we can prove that the bank in question never made any advances upon railway debentures, this completely disproves the assertion that the bank has made losses by that means.

In reasoning by example, we must show that the proposition we wish to establish is a fair deduction from the example we adduce. Thus to refer to our former example, "That bank has been ruined by an advance upon railway debentures." Now the facts may be true that the bank did make advances on railway debentures, and that it was ultimately ruined. But if it can be shown that these advances were to only a small amount, that they had only a short time to run, and that the loss was only a trifling sum; then it is not proved that the bank was ruined by advances on railway debentures, nor can its example be adduced as a proof that a bank ought not to make such advances.

In reasoning by example, it is necessary to show that there is a resemblance or analogy between the example and the cases to which the example is applied, so far as regards the lesson or doctrine to be enforced. Thus, if we say, the Bank of England has never given interest on deposits, therefore, the London and Westminster Bank ought not to give interest on deposits. To establish this conclusion, it is necessary to show that there is such a resemblance between the two banks; that what is wise or proper for the Bank of England to do, is also wise and proper for the London and Westminster Bank to do. So it has been said the banks in Scotland grant

cash credits, therefore the banks of London ought to grant cash credits. We should in this case also inquire if the circumstances of these banks are the same.

In reasoning by example, we must inquire whether examples cannot be produced on both sides the question, and then draw our conclusions from the greater number or weight of the examples. Thus, the banks of Scotland are all Joint-stock Banks, with unlimited liability; the banks of the United States of America are Chartered Banks, with limited liability. To form a correct comparison we should consider the examples of practical banking presented to us by both these countries. The London private bankers have not always given interest on deposits, the country private bankers have always done so. If we are to argue this question by example, we must consider how this practice has worked with both these classes of bankers.

We will now specify some of those cases in which we reason by example in reference to banking.

1. We reason from example when we adduce facts from history to prove the soundness of any particular system of banking.

"The system of numerous branches enables the banks of Scotland to transfer the surplus capital of the agricultural districts to the manufacturing and commercial districts, without going through the process of re-discounting their bills.

"Some Scotch writers have considered it a reproach to the English banks that they re-discount their bills, and have boasted that, with rare exceptions, the practice of re-discount is unknown in Scotland. The accusation is made without due consideration. The system of branches makes a difference in all banking arrangements. A bank in an agricultural district, say at Norwich, has a superabundance of money. A manufacturing town, say Manchester, has a demand for money. The bank at Norwich will send its money to a bill-broker in London. The bank at Manchester will send its bills to the same broker. A re-discount takes place. But let us suppose that the bill-brokering establishment should become the head office of a large bank, having one branch at Norwich, and another at Manchester. Then no re-discount will occur. The bills discounted at Manchester will never pass out of the possession of the bank. Nevertheless, the surplus funds at Norwich will be transferred to meet the wants of Manchester as effectually as before. This is an illustration of the branch system

in Scotland. A bank at Edinburgh will have branches in both the agricultural and the manufacturing districts. Or a bank whose head office is in a manufacturing town, will have branches in the agricultural districts. Thus the surplus funds of Perth, Ayr, and Dumfries, are speedily transferred to be employed at Glasgow, Paisley, and Dundee. Were a bank to be established at Glasgow without branches, it would probably have occasion for discount at certain times, as well as the banks at Manchester or Leeds.

"At the same time, we think this transfer of capital by means of branches is better than by means of re-discount. There is no occasion for the intermediate party, the bill-broker. The bills do not go out of the bank, so that men's transactions do not become known. The abuses connected with re-discount by fictitious bills are effectually prevented; and the bank can more readily regulate its advances in accordance with its means. To recur to our illustration:—The bank at Norwich may lose a large amount of its deposits; the bank at Manchester, knowing nothing of this, may continue its advances in dependence upon receiving its usual re-discount. The check may at length come so suddenly that the Manchester bank may be placed in difficulty. Under the branch system, should any large amount of deposits be withdrawn from one branch, the bank would immediately limit its advances at the others. The advantage of this system on the approach of a pressure is obvious."

"At present, the business of the Highlands is transacted by means of bank notes of 1*l.* and 1*l.* 1*s.*, with some larger notes on occasions, and that with the greatest facility. Cattle-dealers, and all others having to pay away money to any amount in small sums to a number of people, as in the instances mentioned, prepare themselves by a mixture of notes, some large and some small, accompanied by a few pounds of silver, and everything goes on well. These notes are preferred by the country people before gold, both because they are unable to distinguish between the genuine and base metal, and because these coins are more liable to be lost from their pockets than notes; and they have no reason to repent their confidence in the stability of these banks, whose notes they have been accustomed to receive for so many years in their transactions. But if small notes are superseded, and gold substituted, it is not easy to see how the supply of gold is to be kept up to carry on the business and transactions of this country. Should a quantity of it be received into the circulation, it would not remain long, but find its way into the banks, who will not again give it out in bills as they do their notes, and it will immediately become a scarce article in the country. A person, then, having to pay in small sums, will on every such occasion be obliged to send his large notes to the bank that issued them, perhaps a hundred miles off, to receive gold and silver in their place, to answer his purpose. The conveyance of it to him is next to be pro-

vided for. The weight may be too much for the post. There are no mail-coaches or other public means of transport; and he must either employ a carrier, moving too slowly for his occasions, or be at the expense of sending a trusty person for the treasure."

2. We reason from example when we adduce facts to prove the unsoundness of any system of banking. The following instances may illustrate this mode of reasoning:—

We may say that the system of private banking is attended with a good many failures. In proof of which we may adduce as examples the number of private banks that have failed for a number of years.

We may say that it is very rare, when a private bank fails, for it to pay twenty shillings in the pound; and we may adduce the rate of dividends paid generally by private banks.

We may say that private banks may be in a state of insolvency many years before they stop payment; and we may adduce examples of this being the case with some banks that have failed.

We may say that private banks are often very deficient in their system of book-keeping; and we may adduce instances of this that may have become known in the Court of Bankruptcy.

We may say that private banking depends often upon the personal character of an individual partner; and we may adduce examples where the death of one of the partners has been followed by the stoppage of the bank.

We may say that private bankers are often engaged in other pursuits, and draw out money from the bank to carry on other trades, and their failure in these other trades causes the ruin of the bank; and we may adduce examples in which this has taken place.

We may say that private banks are sometimes carried on under two or three names, or with the addition of Co., when there is only one person in the bank; and we may adduce examples of this.

We may say that when a partner of respectable name and standing retires from the firm by death or otherwise, the business of a private bank is sometimes carried on in the

same name, though there is no partner of that name remaining in the firm; and we may adduce examples of this.

We may say that a private banker, in dealing with his customers, may be governed by private feelings of attachment, or at other times by caprice, so as to give accommodation liberally at one time, and at another time altogether withhold it; and we may give examples of this.

3. We reason from example when we point out the principles acted upon by some prosperous bank, in order to induce another bank to adopt similar principles.

"The London and Westminster Bank.—Another principle of the bank - not announced in the prospectus, but adverted to in some of the Annual Reports—is that of keeping a large portion of its funds at all times in a convertible state. In the Report of March, 1839, the directors state,—'Although a low rate of interest prevailed during the last year, the directors did not allow the desire of making large profits to tempt them into advances upon inferior securities, or to lock up their funds in inconvertible investments;—they feel assured, that any departure from sound principles in banking, even when attended with *immediate* profit, must always *result* in loss to the proprietors, and danger to the establishment.' Again, in the Report delivered in March, 1844, we read—'Throughout the whole of last year money was exceedingly abundant, and, consequently, cheap. But although a low value of money affects most severely those banks that have the largest paid-up capital, and which have been so managed as to retain the full command of their funds, yet the directors did not suffer the desire of obtaining a higher rate of interest to betray them into advances upon doubtful or inconvertible securities.' In conformity with this principle we find, from the account of assets and liabilities attached to the Annual Reports of the directors, that the amount invested in Government securities is considerably more than the whole capital of the bank. The propriety of such a course must have been abundantly evident during the existence of the bank, for it would be impossible to find so many 'pressures' on the market, or so much fluctuation in the value of money within any similar period in the history of banking. It may be presumed that the directors spoke from their own experience, when they stated in their Report of March, 1840, 'the years 1837 and 1838 were remarkable for the abundance and cheapness of money, and the year 1839 for scarcity and pressure.' Neither of these extremes is favourable to large banking profits: a state in which money is easy without being abundant, and valuable without being scarce, is most conducive to the welfare of both the banking and the commercial interests of the country."

4. We reason from example when we point out the principles or conduct which have led to misfortune in other banks, in order to induce our own bank to avoid a similar course.

"Some banks have become involved in difficulties through a general want of system and discipline in conducting its affairs. This laxity shows itself in two ways—the absence of a good system of book-keeping, and the want of a proper control over its branches.

"We could not adduce a more striking illustration of this observation than has been furnished in the history of the Agricultural and Commercial Bank of Ireland, as related before a Committee of the House of Commons in the year 1837. The following are extracts from this evidence:—The books at the head office had not been posted for four months. There were no stock-books, showing the amount each shareholder had paid on his share. There were no books showing the amount of the circulation. An auditor states:—'They showed us no general account—their books were in a perfect chaos.' They had no account at the head office by which they could check any transaction at the branches. Bills were sent away to be re-discounted without any entry of them being made in the bank-books. At the branches there was no regular system of accounts. At no one branch was there a system of accounts that formed an adequate check upon the amount of notes in circulation; 'and from one branch we were told that returns had not been made to the head office for fourteeen months, and from another for six weeks, and there was no question about it from the head office."

Conduct still more criminal is ascribed to the Directors of the Royal British Bank. The Commissioner of the Court of Bankruptcy stated that the following charges had been established against them:—First, commencing business before all the shares were subscribed for, and thus imposing upon the Board of Trade; making, declaring, and publishing false statements and balance-sheets of the assets, liabilities, and profits of the bank, for the purpose of concealing the actual state and position of the affairs of the corporation; declaring dividends when no profits had been made, and when great losses had been incurred; conspiring to raise the price of the shares of the company by illegal means, and with a criminal view; conspiring to obtain a supplemental charter by false representations and false reports and balance-sheets; making repeated gross misapplications of the funds of the bank; by

large loans to some of the directors and other persons on terms of the utmost risk, and in total disregard of the discretion vested in the directors by the charter; by embarking in a hazardous speculation quite foreign to the legitimate business of banking (the Welsh mines); and lastly, by not exercising proper superintendence and control over the general manager in conducting the business and affairs of the company. All the counts of this bill of indictment, the Commissioner stated, are amply supported by evidence. The auditors, too, in his opinion, neglected the duty which they owed to the proprietors, of properly examining and auditing the accounts of the directors, by signing and representing as correct, accounts which were fallacious, and concealing the real financial state of the bank at the time. The auditors were in a situation to know the falsehood of that which they had signed as correct, but neglected to avail themselves of the means of knowledge within their power.

5. We reason from example when we adduce the particular acts of other Joint-stock Banks for the purpose of inducing the bank with which we are connected to adopt a similar line of conduct.

6. We reason from example when, from the unprofitableness of some investments made by ourselves or other bankers, we determine in future to avoid similar investments; or, when from the fact that a bill we have discounted on a certain party has not been paid when due, we infer that other bills we hold, not yet due, will also not be paid:—

"The bankers of Lancashire usually keep the whole of their reserves in bills of exchange. If they have a 'good bill case,' that is, a large amount of good bills in their case, they think themselves prepared to meet any emergency. Their objection to Government securities is founded, first, upon the low rate of interest which they yield; and, secondly, the possibility of loss, from fluctuations in price. They contend, too, that good bills of exchange are more convertible than even exchequer bills; and, even if not convertible, the money comes back as the bills fall due, and thus the reserve is constantly replenished."

7. We reason from example when we attempt to justify the Bank of England in advancing or reducing her mini-

mum rate of interest, by stating that under similar circumstances she had on some former occasion adopted the same course:—

"The Bank of England, which, during the recent shutting of the Transfer Banks, has made its usual quarterly advances on stock at 6½ per cent., gave notice this afternoon that the rate for such advances will now be 7 per cent., and that they will be limited to seven days. This movement was not generally known until after business hours, when it caused consols to be sold at a further decline. It is, however, *precisely similar in character* to that adopted at the approach of the dividend payments *in January last.* The step, therefore, might have been anticipated."—*Times,* April 7, 1857.

8. We reason from example when we describe the praiseworthy conduct of individuals, in order to induce other parties to act in a similar way.

9. We sometimes argue erroneously from examples. Such is the case when one deviation from sound principle is considered a sufficient reason for making another. "You advanced money on dead security to Mr. A. Then why not do the same to Mr. B.?" "You have taken one clerk who is in bad health, or is hard of hearing, or has an impediment in his speech; then why refuse to take another who has a similar defect?" "I know you have allowed Mr. A. to overdraw his account to a large amount; then why not let me do the same thing?" "A few days ago you advanced 100,000*l.* to a railway, and now you refuse to advance 50,000*l.* to a railway of greater credit."

This reasoning may be erroneous in two ways. If, in the example adduced, the advance was an imprudent one, in being made to a railway unworthy of credit, it is no reason for making advance to another railway somewhat less unworthy. Every case should be discussed upon its own merits, and not by comparison with another advance of acknowledged imprudence. One unwise act cannot be fairly adduced as a reason for committing another. Again, the advance of 100,000*l.* made in the former case may be as large an amount as the bank, with a due regard to its financial position, ought to invest on that kind of security. In this case the former advance, so far from being a reason for making another

advance of the same kind, would be a reason for not making it, however superior may be the character of the railway.

On the other hand, we argue erroneously, when we refuse to engage in one transaction, not because that one would be objectionable, but because it would be imprudent to engage in a very large number of similar transactions. "We may have a hundred applications to do the same thing. Now it would be imprudent to do it a hundred times, therefore it would be imprudent to do it once."

11. Under the head of Reasoning from Examples we may place the Doctrine of Probability. This doctrine is founded on the principle that the future will resemble the past. If, then, an event has occurred once, it is possible that, under similar circumstances, it may occur again. If it has occurred two or three times, possibility may be increased to probability, and this probability will be increased by every additional occurrence of the event. But this probability may be diminished or totally destroyed by the occurrence of opposite events; and then we shall have to calculate the probability, not merely from the number, but also from the character of these events. Thus, if a banker holds a dozen bills upon a party, and ten should be punctually paid, and the eleventh should not be paid, the probability of the twelfth being paid is not as ten to one; for the non-payment of the eleventh will more than counterbalance all the evidence from the payment of the previous ten. So in regard to moral principles; one act of fraud will more than counterbalance twenty acts of uprightness, in forming a judgment of the character of the individual. So if a tradesman has failed three times before, and two of these failures are fraudulent, this will not be regarded as evidence that there are only two chances to one that his fourth failure is dishonest. If a customer borrows money of his banker, and for six times is punctual in repayment of the loans, but fails on the seventh, his banker will not readily trust him again upon the ground that there are six chances to one that the next loan will be punctually paid. Something, however, will depend upon the order in which the failure of his promise occurred; for if the party failed in his

first promise, but was punctual in the subsequent six, then the case will be different, as far as regards the confidence of his banker. These failures are, in fact, considered as indications of the present character or the present circumstances of the party; and the influence they will have in forming our judgment of his future conduct will depend upon the number of times they have occurred, the character of the failures themselves, and the time which has elapsed since the transactions took place.

Sometimes we are called upon to judge as to the probability of future events, when the past does not furnish us with any examples precisely applicable to the case before us. Here we form our judgment from analogy and comparison, from the principles and feelings of human nature, and from the general course of events. And as in these cases we have often but slender evidence on either side, or perhaps evidence equally strong on both sides, we must expect that our anticipations will sometimes not be realized.

Among subjects of this class may be placed the future prices of the funds, the degree of success that may attend new banks or other public institutions, and the future conduct of bank directors or other public bodies. A striking instance of this uncertainty occurred in the Reasonings of the City Article of the 'Globe' newspaper on the 2nd April, 1857. At 12 o'clock it writes thus:—

"The Money Market continues in a tightened condition, and the demand is maintained at firmer rates. The arrivals of specie now announced will, however, have the effect of supplying the demand for the Continent, and will also probably assist to recruit the stock of bullion in the vaults of Threadneedle-street. If this should not prove the case, the circumstance of further remittances being on the way will create confidence and lessen the apprehension which would otherwise be entertained with respect to a further upward movement by the bank authorities. Notwithstanding reports have been circulated with regard to an augmentation of the terms, it is not supposed the directors will resort to more stringent measures, but that they will wait to ascertain the destination of the present supplies of specie. It is expected that the bullion receipts are now likely to increase, and, having surmounted the difficulties of the latter part of last year, the prospects of the future are considered more encouraging."

At 2 o'clock it writes thus:—

"The commercial public have been taken by surprise at the resolu-on just adopted by the bank directors for raising the minimum from 6 to 6½ per cent. for all descriptions of paper. This alteration applies to loans on stock as well as discounts. Although the measure was in some degree apprehended, and a larger number of persons congregated near the bank 'parlour' to hear the result of the deliberations, which were of a protracted nature, an advance was not generally anticipated. The result, however, shows that it is impossible to form any precise opinion of what is passing within the precincts of the bank."

In regard to the following points, also, we might have been deceived in judging of probabilities.

It might have appeared probable that were a banker to receive a large sum of money, and engage to repay it upon demand, he would be obliged to retain the whole sum in his till that he might at all times be able to comply with the demand.—It might have appeared probable that were he to receive numerous sums of money from various persons, with an engagement to repay those sums in any quantities they might require, he would be compelled to charge them for conducting the operations.—It might have appeared probable that were he to receive various sums of money from numerous individuals, each of whom might draw out the whole of his deposits whenever he pleased, that the average amount of the deposits in the banker's hands would be subject, from day to day, to very great fluctuations.—It might have appeared probable that though Joint-stock Banks were excluded from the clearing house when they were young and small establishments, yet they would be admitted when they should become powerful and prosperous banks, and that the admission would take place in less than twenty years after their establishment. —It might have appeared probable that when Joint-stock Banks should be established in London, that all the country Joint-stock Banks would employ them as their London agents.—It might have appeared probable that when the Bank of England was divided into the Banking and the Issue departments, the latter to be "a self-acting machine," the directors would no longer be held answerable for the regulation of the currency.—It might have appeared probable that

after the Act of 1844 had been suspended in 1847, the advocates of that measure would acknowledge that it had failed to accomplish its purpose.—It might have appeared probable that after all the books and pamphlets that have been written on the currency, the public would become better acquainted with the subject than they were before these books and pamphlets were published.—It might have appeared probable that both private and Joint-stock Banks would profit by experience, and avoid those measures by which other banks had been ruined.

We may observe that the Doctrine of Probabilities, or, as it is called, the Doctrine of Chances, as taught in the science of mathematics, is not applicable to banking. A banker cannot take the number of bills he discounted last year, observe how many were punctually paid, and how many were dishonoured, and from this proportion calculate the probability of punctual payment with regard to the bills offered to him for discount in the present or any future year. Probability in banking is not the balance of numbers, but the balance of arguments, and arises from a consideration of all the circumstances of each individual case. But time and number are sometimes circumstances that enter into the calculation. In reply to an inquiry about his customer, a banker may reply, "He has kept an account with us for a long time, and has always been regular. It is probable, therefore, that he will continue to be regular." When a bill is offered him for discount, he may say or think, "I have discounted several bills on this man, and they have always been punctually paid; it is probable, therefore, that this bill will also be paid."

SECTION II.

REASONING FROM ANALOGY, COMPARISON, AND CONTRAST APPLIED TO BANKING.

We have stated, at page 136, that analogy means resemblance—that to reason from analogy is to reason about one thing from its resemblance to another thing; that an analogy means an agreement between two or more things which in other respects are different; but when there are several points of agreement, it is then a comparison; and that sometimes we compare things together, not to discover wherein they agree, but wherein they differ, and we rest our argument upon the difference or contrast. In the illustrations that we have copied from our own writings, we have noticed—1. The Analogy between Nations and Public Companies as to their Moral Responsibility; 2. A Comparison between the Pressures of the years 1836 and 1839; 3. A Contrast between the Circulation of the Bank of England and that of the Country Bankers; 4. A Comparison between the Country Bankers and the Branches of the Bank of England; 5. A Comparison between Branch Banks and Independent Banks; 6. A Comparison between Cash Credits and Bills of Exchange; 7. A Comparison between English and American Banking; 8. The Comparative Effects of the Banking Laws of 1844 and 1845 in England, Scotland, and Ireland.

In the further application of these principles to the art and the science of banking, we begin with analogy. At the same time, we may observe that, in ordinary conversation, the word analogy is used in a more extensive sense than we have here employed it, and includes the general idea of comparison.

We have said that to reason from analogy is to reason about one thing from its resemblance to another. The existence and attributes of the thing with which the comparison is made are not a question of dispute. Like the implied proposition in an Enthymeme, they are believed or admitted to

be true. The only question is, how far the second thing bears a resemblance to the first, and whether it is such a resemblance as will warrant the same conclusion from the second which you have justly drawn from the first. In illustration of this principle, we make the following quotation from Mr. Bell's 'Philosophy of Joint-stock Banking':—

"If a person went into the shop of a grocer in order to make a purchase, and presented in payment the note of some distant country bank, of which and of the person himself the grocer knew nothing, we would entertain a very indifferent opinion of the judgment of the latter, if, simply because the stranger had the manners of a gentleman, and spoke like a man of sense and honour, he gave him value for the note. In like manner, if a banker had a bill presented to him for discount, which is virtually presenting him with a document to be exchanged for the merchandise—money—in which he deals, and although he knew nothing of the parties by whom the bill was drawn and accepted, yet because the person presenting it had the air and manners of a gentleman, or even because he looked like an honest man, he was induced to advance money on the bill, we should reasonably consider him a weak banker."

In this quotation it is assumed to be true, that the conduct of the grocer would be imprudent. It is stated that the conduct of the banker would be analogous to that of the grocer; and hence it is inferred that the conduct of the banker would also be imprudent.

In the year 1855, the Chancellor of the Exchequer (Sir George Cornewall Lewis) proposed to lay a penny stamp upon every cheque drawn on a banker. One argument employed by the joint-stock bankers against this tax was, that it would cause a great number of small accounts to be closed, and the parties, instead of keeping their money at their banker's, would keep their money in their own houses, and consequently a larger amount of coin or notes would be required to carry on the trade and commerce of the country. This argument might have been illustrated and enforced by a reference to the Savings' Banks. These banks hold a great number of deposits individually small, but amounting in the aggregate to a large sum, which is rendered available for public purposes. Let us suppose that one-third of these deposits were to be withdrawn, not to be invested elsewhere,

but to be hoarded in the cupboards of the depositors. Here, then, would be an immediate demand for gold or bank notes to the extent of ten millions. This sum must have been found by the Government, and the demand for this large amount of currency would have affected the Bank of England. Now, the joint-stock banks have many accounts, the balances of which individually are not larger than the maximum of a savings' bank deposit. If any considerable amount of these deposits were withdrawn, the effect would be the same as the withdrawal and locking up of deposits from the savings' banks. For although the parties would be continually receiving and paying away money, yet the average amount retained in their own hands would, of course, be the same as the average balance they had previously kept with their bankers.

Some of the witnesses before the Bank Charter Committee have given opinions in favour of requiring banks of issue to give Government security for the amount of their issues. The following objection to this arrangement is an argument from analogy, and it may be directed against all similar arrangements:—

When a merchant fails, we often find in his balance that a certain amount of debts is secured, and another amount of debts is unsecured. In proportion as the secured debts are large, in such proportion the dividend he can pay on the unsecured debts is small. And we find that corn merchants, colonial brokers, and others, who can readily transfer their property by means of dock warrants, usually pay a bad dividend to their general creditors. They had previously borrowed money on their warrants, and the holders of these warrants getting paid in full, there is but little left for the holders of their bills, or for any other parties to whom they are indebted.

Now, is there not an analogy between those parties who give security to particular classes of their creditors, and those banks who give Government security for certain classes of their liabilities? The Bank of England gives security for the amount of their notes; the Bank of London have trans-

ferred to the Board of Works Government security for the funds that may be lodged with them as their treasurers; and we have heard of other joint-stock banks adopting similar proceedings. When it was proposed some years ago, that country banks of issue should give security for their notes, it was objected that, in cases of failure of the bank, the holders of the notes would then be paid in full, and the depositors might get nothing. May not the same effect take place in case of the failure of those banks that give Government security for certain classes of their deposits?

We reason erroneously from analogy when the facts of the first case or of the second case are not correctly stated, or when there is no analogy or a mere verbal analogy between them, or when the analogy is not such as to warrant the kind of conclusion which has been inferred. The following are examples in which the analogy or the want of analogy does not warrant the inference.

It is not necessary that the London joint-stock banks should, like the banks of Scotland, have a large paid-up capital, in proportion to their liabilities; inasmuch as they do not issue notes.

This young man should be appointed a clerk in the bank, in preference to the other candidate, who is better qualified; for his father is dead, and his mother has a large family.

This reckless speculator, by whom thousands of honest people have been ruined, is not morally so great a criminal as he who has just picked your pocket of a handkerchief; for one has committed felony, the other has not.

It is not so great a crime to defraud a joint-stock bank as it is to defraud a private bank; as the loss falls on a greater number of partners.

Comparison.

Comparison is the basis of all our reasonings. An idea, or a conception, is a *representation* of a thing in the mind. To ascertain if we have a correct idea of anything, we compare the idea with the thing. If they correspond, then we say, we have a correct idea of the thing—otherwise our idea is

incorrect. Then we compare our ideas with the words employed to denote those ideas, and we call these words correct or incorrect, clear or obscure, definite or indefinite, certain or ambiguous, according as they correspond with the ideas they are intended to express. If we wish to give a logical definition of anything, we compare it with other things. We observe wherein it agrees with those other things, and we call *that* the genus; we observe wherein it differs, and we call *that* the difference; and by joining the genus to the difference, we form the definition. (See pp. 22, 250.) So in propositions, we compare the subject with the predicate. If they agree, we form an *affirmative* proposition; if they disagree, our proposition will be negative. Again, in framing our syllogism, we compare two propositions—the major and the minor. If they agree, our conclusion will be affirmative; if they disagree our conclusion will be negative. (See pp. 50, 263.) Arguments which are not in the syllogistic form are equally founded on comparison. "As this bank was badly managed, it has stopped payment." Here, in technical language, the ideas of "badly managed" and of "stopping payment" are said to agree, and the conclusion asserts this agreement.

But when we employ the word comparison to denote a principle of reasoning, we do not use the word in this technical sense. In popular acceptation, the word comparison means to put two things side by side, and see wherein they resemble each other, and wherein they differ. The operation is similar to that of making a formal logical definition, except that in the definition we inquire only into the one main thing in which they agree, and the one main thing in which they differ. In comparison we notice all the agreements and all the differences, so far as may be necessary to the point we wish to prove.

There are many cases in practical banking in which we have occasion to reason by comparison. When a banker deliberates whether he will keep his reserve in Government stock, exchequer bills, commercial bills, or any other kind of investment, he necessarily makes a comparison between these different investments; and he inquires which will yield the

highest interest, which is most secure against loss, and which can most readily be turned into money, in case he should require it. There is no difficulty in answering these inquiries individually, but there is often embarrassment in deciding which of the modes of investment, taking all the circumstances into consideration, it is most desirable to adopt at that precise time.

When a new bank is about to be established, it is usual to compare the different banks in operation in other places, in order to ascertain which of their principles are adapted to the locality of the bank about to be formed. The following is an example of this:—

"At the time the London and Westminster Bank was announced, it was contended by the advocates of the previous system, that the principles of joint-stock banking were wholly inapplicable to the wants and habits of the population of London. Had the founders of this bank possessed zeal without discretion, they would probably have disregarded the peculiarities of the field of their operations, and have adopted entirely the system of banking so long acted upon in Scotland. They seem, however, to have combined the enlightened views of statesmen with the caution and practical knowledge of men of business. Hence, they followed or discarded the principles of Scotch banking according as they found them adapted, or otherwise, to the local circumstances of the London population."

"A further attempt was made to popularize the system of banking in London, by allowing interest upon small sums of money lodged on deposit receipts. All the witnesses examined before the Parliamentary Committees of 1826 had borne testimony as to the beneficial effects of this system in Scotland. And although the London and Westminster Bank, not being a bank of issue, could not regard these small deposits as an instrument of increasing its circulation of notes, yet it was thought that the system might be rendered a source of profit to the bank, and certainly an advantage to the community. The savings' banks could receive no more than 30*l.* from a depositor in each year, and only 150*l.* in the whole. Those parties who had further sums they wished to deposit in a place of security upon the principle of receiving interest on the sums thus lodged, were provided with such a place in the London and Westminster Bank. Sums from 10*l.* to 1,000*l.* and upwards are received on deposit, and interest allowed at a known rate, and they are at all times repayable upon demand without notice.

"The London and Westminster Bank have not adopted the system of cash credits, as practised in Scotland. These credits are valued by the Scotch banks chiefly as an instrument for the issue of their notes; and

it may be questioned whether the system can be rendered a source of profit to a non-issuing bank without imposing heavy charges in the form of interest and commission upon the customers."

The adoption of public measures may also be decided upon the principle of comparison. For example, it may be inquired whether, in time of war, it is better to raise the supplies by way of loan, or by means of increased taxation. The arguments in favour of raising extraordinary supplies by loans rather than by increased taxation, are the following:—1. Larger sums can be raised by loans than by taxation.—2. They can be raised in less time, so as to meet a sudden demand.—3. They cause less pressure on the comforts of the people.—4. They produce less injury to the trading and commercial community. On the other hand, it may be stated that loans are an encouragement to Government to be extravagant, and are a tax upon posterity.

Again, it may be inquired whether it is better to raise a loan on 3 per cent. consols, or at 5 per cent. The arguments in favour of borrowing money on 3 per cent. consols rather than on 5 per cent. are, that the annual charge is less, and that the loan is more readily taken, as consols are always saleable. The objection to borrowing money in consols is, that the annual charge cannot be reduced when a fall has taken place in the market rate of interest.

When an author publishes a new work upon banking, or logic, or anything else, he usually draws a comparison between his own book and those already published. The following is an example:—

"I have called this work 'Logic for the Million.' By this title I mean that here the art of reasoning is explained in such a way as to be readily understood, even by those men and women who have not had the advantage of a literary education. The imperfection of the existing works on logic as means of popular instruction arises from two principal causes, which render modern systems of logic both tiresome and comparatively useless. These are, first, the employment of a vast number of old scholastic terms and phrases, which throw over the art such an air of difficulty and perplexity, that the reader is worn out by the pressure of uncouth words. And, secondly, that our common books of logic treat rather of metaphysic systems, and seem to be founded on the principle that, before we can exercise our reasoning powers with energy

and effect, we must be intimately acquainted with the anatomy of our own minds. The first cause refers to scholastic logic, the second to metaphysical logic. The system of logic described in this work differs from both these systems. Here are no intricate theories in which the reader may become bewildered, no knotty questions by which he may be embarrassed, and no hard words which he cannot understand. The system which this work professes to teach is the logic of common sense. This work differs also from other works on the same subject in the character and number of the illustrations. I have not copied from other logical works trivial and fictitious examples, capable of no practical application. My illustrations have been gathered from authors of established reputation, and are generally upon subjects of great public or private interest. Some have been selected because they are entertaining, others because they teach lessons of still higher importance than even the art of reasoning."

Reasoning by comparison sometimes leads to erroneous conclusions. Sometimes the comparison is made between the wrong parties. In the quotation at page 19, an attempt is made to prove that a joint-stock bank is inferior to a private bank in its means of obtaining information respecting the circumstances of parties. And how is this proved? By stating that the private banker devotes his whole time to the bank, and a bank director but a portion of his time; and hence it is inferred that the private banker obtains a better knowledge of the circumstances of parties than the bank director. Here the comparison is between the wrong parties. It is not the province of the bank director to get this information. It is the province of the bank manager. And to prove the inferiority of the joint-stock bank, it should be shown that a bank manager, whose whole time is devoted to the bank, has not the same means of getting information as the private banker.

There is another fallacy of comparison. When a comparison holds good with regard to a few cases, to infer that it holds good in all cases. A comparison has been made between a board of bank directors and a private bank; and it is stated truly that, in point of secrecy and despatch, the board of directors is inferior to the private bank. But it is not stated that the transactions which require the consideration of the board of directors are very few; that all the ordinary

business of the bank is transacted by the manager, without reference to the directors, and that those cases which are referred are usually of a kind on which even private bankers would take time to deliberate; and on which a private banker, who had no partner, would postpone an immediate reply.

Another fallacy of comparison is when injudicious comparisons are made between directors and managers. At a general meeting of shareholders, a vote of thanks is usually given to the manager, and the proposer not very discreetly will sometimes draw a comparison between the directors and the manager. After observing, truly enough, that however excellent may be the directors, no bank can prosper without a good manager, he will indulge in praise of the services of the manager in a way that betrays a desire to disparage those of the directors. And individual directors will show a degree of soreness at the plaudits bestowed on the manager, as though they reflected upon themselves. Now there is a great fallacy in all this. The manager is appointed by the directors, and the more meritorious or successful the manager, the greater praise is due to the directors. The duties of managers and of directors are distinct from each other; and when a manager is applauded for his conduct as a manager, it does not by any means imply that he is equally qualified for the office of director. We recollect a discussion upon the merits of Queen Elizabeth and Henry the Fourth, and it was contended that no merit was due to either of those sovereigns for the prosperity that attended their reigns, because all their success was owing to the talents of their ministers. The reply was, "And who appointed those ministers?" A talent for selecting suitable instruments is one of the most important that the supreme power in either a nation or a bank can possibly possess. He who knows how to make use of the talents of other men, possesses a talent of higher value than any one talent which any of those other men possess. And if a bank has the good fortune to have a manager of high character and great success, who has been selected and progressively rewarded, and treated with due confidence and respect by his

directors, this proves that however clever he may be in his capacity of manager, his directors, in their capacity of directors, are as clever as he; for it is only by clever men that a clever man is duly appreciated.

We may be led into erroneous conclusions when the words which denote the objects of comparison are ambiguous, and have two or more different meanings. If we say that, since the passing of the Act of 1844, "the circulation of the Bank of England fluctuates in accordance with the amount of her gold, but it did not do so before that period," our comparison is fallacious. Before the Act of 1844, by the *circulation* of the Bank of England we mean the amount of notes in the hands of the public. But since that period, by the circulation of the Bank of England we mean the circulation of the issue department. If we mean the amount of notes in the hands of the public, that amount, since 1844, does not fluctuate with the amount of gold any more than it did before. We compare the Bank of England and the Royal British Bank, and say truly that both were chartered banks; but it would not be correct to infer that, therefore, the charter of the Royal British Bank limited the liability of the shareholders. We compare the banks of Scotland with some of the London joint-stock banks, and say, that both allow interest on current accounts; but it would be a fallacy to infer that they did so on the same system; for the Scotch banks allow interest on the daily balance, and at the same rate which they allow on deposit receipts. But the London banks have usually allowed interest only at the rate of one or two per cent. on the lowest balance standing to the credit of the account on any one day during the half year, or during the past month.

We may reason erroneously from the principle of comparison, when the comparison, however correct in itself, has no bearing whatever upon the question to be proved. In the middle ages it was considered unjust to take interest for the loan of money. The scholastic logicians of that time, guided by quaint and collegiate fancies which they had picked up in Aristotle, contended that interest for money had been forbidden by nature, because coin in itself was barren and

unpropagating, unlike corn, of which every grain will produce many.

When two subjects are compared, and they are found to have one attribute in common, it is sometimes hastily inferred that they have other attributes in common. Both bank deposits and bank notes have this attribute in common, that they can be employed to extinguish a debt. Hence it was inferred that deposits were, in all other respects, the same as bank notes, and both were called by the name of currency.

Contrast.

In logic, we use the word comparison when the objects differ only in degree; but when they differ in kind and quality, we call the difference a contrast; though in ordinary conversation we often employ the word comparison in reference to both these cases. But we reason erroneously when from the comparison we infer the contrast. The comparison usually implies the positive quality, not the reverse of the positive. If I say, "This bank pays a higher dividend than the other," we cannot infer that "the other" bank pays a low dividend. So, in the following examples, the inference is not warranted:—

This customer keeps a better account than he did formerly; therefore formerly he kept a very bad account.

The accounts of merchants are more profitable than those of stockbrokers; therefore the accounts of stockbrokers yield no profit.

That clerk is more clever than his companion; therefore his companion is stupid.

In that bank the most clever clerks are made cashiers: therefore all the accountants are blockheads.

That director is the most useful member of the board; therefore all the other directors are useless.

That bank is the most prosperous bank in London; therefore no other bank in London is prosperous.

Arguments resting on the principle of contrast are often expressed in that figure of rhetoric which is called antithesis. The following are examples:—That clerk is very correct, but

he is very slow; that cashier is very quick, but he is very uncourteous; that manager has been very successful, but he is badly paid; that director has published a pamphlet on the currency, but he does not understand the subject; that chairman is a clever man, but he cannot command his temper; the shareholders in that bank have always had handsome dividends, but they are never satisfied. A private bank consists of but few partners, whose capital is unknown, whose means may be diminished by the death or retirement of a wealthy partner, whose actions are shrouded in secrecy, and whose profits are confined to a few individuals. But a joint-stock bank consists of many partners, who have a fixed paid-up capital, which cannot be withdrawn or diminished by the retirement or death of any partner, whose affairs are published every half-year, and whose profits are shared by a large class of the community.

We shall now adduce from our own writings some quotations which exemplify the principle of reasoning from analogy, comparison, or contrast.

1. Advances on gold bullion.

"Again, we ask whether this plan of issuing notes upon deposits or purchases of bullion does not produce the same effects as though the bank should issue her notes upon lodgments of cotton, or silk, or tea, or any other commodity? We should censure, and justly too, the conduct of a country banker, who had commenced corn-merchant, and inundated his district with notes issued in the purchase of corn; but would his conduct be at all more censurable than that of the Bank of England, which inundates the country with notes issued in the purchase of gold or silver bullion? It may be said that, when the country banker's notes are presented for payment, he could not honour them until he had first sold his corn, while the Bank of England, having not corn, but gold, could pay off her notes when presented. Supposing this to be correct, this would not counteract the evils produced by the excessive issue. The notes would not be presented for payment to the Bank of England until the foreign exchanges had become unfavourable. But the mischief would then have been done, and the prompt payment of the notes would not counteract the evils produced by the high prices and speculations that followed the excessive issues; and let it be observed, that when the exchanges have thus been rendered unfavourable, it is by no means certain that the amount of notes for which gold would be demanded of the Bank of England would be limited to the amount of

the portion that was in excess. It has been generally found that an unfavourable exchange resembles the operation of the syphon. When the currency is raised to a height that shall turn the exchanges, the gold continues to flow outward until nearly the whole stock is exhausted."

2. Reply to Mr. Loyd, now Lord Overstone, on the issues of country banks.

"In order to prove that the expansion and contraction of the circulation of the Bank of England have but little influence on the country circulation, Mr. Loyd has compared the circulation of the Bank of England and those of the country banks at the same dates. Whatever effects a contraction of the circulation of the Bank of England may have on the country circulation, it can hardly be expected to operate instantaneously. In the order of time a cause must precede the effect. Yet, to show that a contraction of the bank does not produce a contraction of the country issues, Mr. Loyd compares them at the same period. Not only so, but Mr. Loyd selects particular periods of comparison, according as they may be most favourable to his own views. From some cause with which we are unacquainted, the average country circulation is at the lowest point during the quarter ending September, while, in that ending June, it is usually at the highest.* Mr. Loyd takes these two amounts, and when he wants to prove that the country banks have too suddenly contracted their issues, he compares the June quarter with the September quarter of the same year, But when he wishes to establish against the banks a charge of excessive issue, he compares the September quarter of one year with the June quarter of a subsequent year. It is clear, that the most opposite accusations may be established by this mode of proof. It happens too, fortunately for Mr. Loyd, that the circulation of the Bank of England has no corresponding variations at the same periods. The circulation in the month of June is usually low, as it immediately precedes the payment of the July dividends. Hence these two periods, June and September, are the periods which Mr. Loyd always selects for making comparisons between the circulation of the Bank of England and that of the country banks; and he has made no fewer than six comparisons of this kind. This mode of exculpating the bank was, we believe, first practised by Mr. Horsley Palmer, and for which he was very properly admonished in the following language, by Mr. Loyd himself:—'We are told that the issues of the bank have been reduced nearly twenty-five per cent. between the month of March, 1834, and July, 1836; but the simple contrast of the state of the circulation at any two periods, *selected with the view of pro-*

* At this period, the only Returns given to the public were the quarterly averages. The weekly returns were not published till the year 1844.

ducing a particular result, is far from being sufficient for the intended purpose.'"

3. Private banks and joint-stock banks.

"To be a private banker, a man should have, first, respectability and station in society; secondly, capital; thirdly, knowledge of the trade of banking. These three things are usually combined in the same person; and hence, at the end of the year, when the banker makes up his books, he considers all his gains to be profit. This is erroneous; that only is profit which is made by his capital. Those portions of his gains which are made by his influence or his professional knowledge are not profit, but wages. These are the reward of his personal exertions, and were he merely to provide the capital, and employ other persons to find the influence and the management, he would have to pay the persons accordingly.

"This, in part, is sometimes done. A wealthy and influential banker will sometimes take an active partner, without capital, either to supply his own deficiencies in banking knowledge and experience, or to relieve himself from the necessity of personal attendance. The junior partner is in fact a manager, and his share of the gains is not profit, but wages. The circumstance that these wages fluctuate from year to year, according to the amount of the gains, does not change their character; they are still not the profits of capital, but the wages of labour. In some cases, a private banker may have no capital invested in his business. In this case he makes no profit; all his gains are wages earned by his personal influence or his personal exertions.

"In joint-stock banks this is obvious, as the influence, the capital, and the professional knowledge are supplied by different persons. The influence is supplied by the directors, the capital by the shareholders, and the professional knowledge by the manager. That portion of the gains, therefore, which exceeds the average rate of profit on the capital employed is not profit, but, like the fees or rewards of professional men, is the result of the influence of the directors, and the knowledge of the managers.

"This shows the reason why joint-stock banks are supposed to be more expensively managed than private banks. In joint-stock banks, the expenses of government, the salaries of the directors and the managers, are separated from the profits, and added to the other expenses. While in private banks the expenses of government remain united to the profit, because they belong to the same persons, and the whole is regarded as profit.

"It would therefore appear to be a just conclusion from this principle, that shareholders in joint-stock banks should be contented with a liberal rate of profit on the capital invested, and let a large portion of the surplus gains be assigned to the directors and the managers, by whose

influence and knowledge these gains were created. So long as the executive parties are considered as the hired servants of the company, to be paid a fixed salary, and nothing more, to be retained so long as convenient, and when no longer useful, to be then dismissed, they never can feel that identity of interest with the bank which is essential to the full development of their own powers, and to the highest prosperity the establishment can obtain. In the purchase of intellectual services, it is often found that those which can be obtained at the lowest price are not in the end the cheapest. In law, in medicine, and in banking, it is always best to procure the services of men of first-rate talents, and to give those talents the strongest stimulus, by holding out large rewards in case of success. And when success has been obtained, those rewards should be ungrudgingly and handsomely bestowed."

4. Managers and bankers.

"It has been said that more losses will be made by joint-stock banks than by private banks, because bank managers lend other people's money, and private bankers lend their own. Here we may observe:—

"1. That people who lend their own money are not always more cautious than those who lend other people's.

"2. That bank managers are accountable for their conduct, but a private banker is accountable only to himself. Hence more caution may be expected from the manager.

"3. The desire of making large profits is more frequently the cause of losses. Now, as the bank manager has no share of the profits, he is, on the principles assumed, less under the influence of this desire than the private banker.

"4. It is probable that, in ordinary cases, neither the bank manager nor the private banker ever think of their personal interest. Practical banking has certain fixed principles, and they are acted upon by the mere force of habit. When a bill is placed for discount in the hands of a practical banker (whether he be bank manager or private banker), he looks over it with as much coolness as though he were working a problem in algebra, and takes or rejects it without the least thought of his personal interest in the matter."

5. Speech at the formation of a joint-stock bank.

"I rise to move that the report now read be received and adopted. I need make but few observations in support of this motion. Accustomed as I am to read publications connected with banking, I know of no document wherein the advantages of joint-stock banks are more fully enumerated, or wherein that enumeration is more eloquently expressed.

"There is one feature of the report which I think is peculiarly deserving of notice—it conveys no reflection upon the private bankers. We

contend not against men, but against principles. We are quite ready to do justice to the high character of the private bankers; they form an intermediate link between the merchant and the gentleman, and partake of the excellences of both. So far from wishing to depreciate the character of the private banker, we contend that it is only by the high character of the banker that the system of private banking has been maintained. England alone is capable of producing men adequate to the support of so weak a system. In proof of this, I need only refer (as the report has done) to Ireland. The system of banking in Ireland was the same as in England. The south of Ireland was as thickly studded with banks as any part of England; but in consequence of differences in education and habits, Ireland did not produce such men as the English bankers. The system fell, and the bankers were crushed beneath its ruins; and now, out of Dublin, a single private bank does not exist in the whole of Ireland. Let us, then, at all times be ready to do honour to the high character of the English bankers, and contend against them only as honourable men should contend against honourable men.

"But while we wish to show our respect for the personal character of the private banker, we give no quarter to the system of private banking. I need not portray the baneful effects of that system. They are unhappily too well known throughout our land to need any description. Go, visit the abodes of your gentry, and inquire how many of their former possessors were reduced to poverty by the failure of their bankers; visit the counting-houses of your merchants, and the shops of your tradesmen, and inquire how many were driven into the *Gazette* by the failure of their bankers; visit the cottages of your labourers, and inquire how many have had the savings of many a year of hard and honest industry wrung from their hands by the failure of private bankers. Enter, if you can, into those exquisite tortures that attend a descent from affluence to indigence, from independence to want. Calculate, if you can, the number of happy domestic hearths that have been laid desolate, how many manly spirits have been broken down, and how many female hearts have burst with anguish at seeing the wretchedness of their husbands and their children. Picture to yourself scenes like these exhibited ever and anon in every city, in every town, almost in every village in the empire, and then tell me if I go too far in saying that the system of private banking has produced more wretchedness in this country than any war, famine, or pestilence with which the land was ever scourged.

"Now, what is the cause of all this misery? Is it an evil inherent in our nature, one necessarily arising from our social constitution? No such thing. Private banking is not a plant indigenous to our soil, but one that has been unnaturally forced into a sickly and pestiferous existence by the artificial application of legislative enactments. To

secure to the Bank of England the monopoly of issuing notes, it was enacted, in the year 1708, that no bank having more than six partners should be formed in any part of England. As this law prevented the formation of joint-stock banks, private banks gradually rose into existence, as they were required, by the increasing wealth and commerce of the country. This law did not extend to Scotland, and consequently, in that country, reason, and common sense, and commercial enterprise had free scope, and naturally led to the formation of joint-stock banks. The system of private banking has been inflicted upon the country for no other object than to secure the monopoly of the Bank of England. To enable a few hundred gentlemen who are holders of bank stock to receive high dividends and large bonuses, every part of the country has been successively impoverished.

"But after the panic of 1825, the Bank of England, awed by the remonstrances of the Government, from whom she derived her monopoly, generously consented to relinquish that portion of her privileges which she deemed to be of no value. An Act of Parliament was consequently passed in 1826, allowing joint-stock banks to be formed at a greater distance than sixty-five miles from London. The Bank of England thus retained the monopoly of a circle 130 miles in diameter, but beyond this circle where, with one slight exception, her notes did not circulate, she consented to the formation of joint-stock banks, attempting, at the same time, to seize as large a portion of even this district as she could by the establishment of branch banks of her own. In consequence of this law, numerous joint-stock banks have been formed in various parts of the country.

"These banks confine their operations to a certain district, but occupy the whole field within that district by an extensive system of branches. Some banks raise by their business more capital than they can employ, that is, their notes and deposits amount to more than their loans and discounts. Other banks employ more capital than they can raise, that is, they can employ, in loans and discounts, more than the amount of their notes and deposits. Now, under a system of private banking, a banker will send his surplus capital to be employed in London, while a barren part of the same district will remain destitute. Even under an extended joint-stock bank, having its head-quarters in London, the capital raised at one branch may not be employed in the same district in which it is raised. But under a local joint-stock bank, the capital raised at one branch will be employed at another in the same district, and thus the whole district will be suitably benefited. Lord Bacon observed, that money was like manure, of little use when collected in heaps, but of great value when scattered over the soil. By an extensive system of branches, you will cause such a distribution of the resources of your district as to cause trade, commerce, and agriculture simultaneously to flourish.

"To the formation of banks such as this we look for a complete deliverance from the evils of private banking. It is a law of our nature that no six men possess as much strength as is possessed by 500 men. And so long as this law remains unrepealed, so long will joint-stock banks be superior to private banks. It is they alone which can prevent the recurrence of such panics as that of 1825. The hurricane may pass harmlessly over the forest where the trees support and shelter one another, while the single oak that stands exposed on the plain will be uptorn by the roots, and scattered in broken fragments to the winds, spreading ruin and desolation upon all within its reach.

"From the unquestionable principles of joint-stock banking, from the favourable field presented by your district for their operation, from the high character of your directors, and from the industry and enterprise of your population, I feel quite confident of the prosperity of this bank. I feel quite sure that the vigorous plant we have met this day to put into the soil, will spring up to be a great tree, spreading wide its branches, till all the neighbouring districts are covered with its shade."

6. Country joint-stock banks and the London agents.

"One great object of the formation of the London and Westminster Bank was to give to the inhabitants of London and Westminster some of those banking advantages which had, by the Act of 1826, been conferred upon the country parts of England. The history of banking in London showed abundantly the necessity for the introduction of a better system. In the year 1810, the number of London banks that settled their accounts with each other at what is called the clearing-house was forty-six. Since that period nineteen of these banks stopped payment, besides three others which did not clear. Thus, within a period of about twenty years, twenty-two London bankers stopped payment. The London and Westminster Bank was designed to remedy this system, to present to the population a bank that could not fail, and, at the same time, to grant the advantages of allowing interest upon deposits, and of adapting its regulations to the wants of all classes of the community.

"But one main object of the London and Westminster Bank was to give to country joint-stock banks an opportunity of employing as their London agent a bank founded on principles similar to their own. Reproach justly attaches to those country joint-stock banks who employ private banks for their London agents, who thus act inconsistently with their own principles, and set an example, which, if followed by their own customers, would soon relieve them from all occasion for any London agent whatever. I like what is called following out a principle. If the principle of joint-stock banking be good, let it be encouraged, let it be followed out in London as well as in the country. If it be bad, let it be renounced. Consistency is a virtue in public

bodies as well as in individuals, and we naturally expect that those who call themselves our friends, should act in character. To form a system of country joint-stock banks, without a central joint-stock bank in London, would be to form a circle without a centre, to form a solar system without a sun. When a London bank fails, it often causes the failure of the country banks with which it was connected. Joint-stock banks that have London private banks for their agents, are not exempt from this danger. Whatever other excellences they possess, they are not possessed, any more than private banks, with the faculty of paying their notes without money. And if they place their funds in the hands of a private bank, and that bank fail, how are their notes to be paid? It is true there would be no ultimate loss to the public, but a suspension of payment for even a single day would cause a suspension of confidence which years of subsequent prudence might not be sufficient to repair. When I see a joint-stock bank appointing a private bank for its agent, it reminds me of the image that appeared in the vision of Nebuchadnezzar. Its head was of gold, its breast was of silver, its thighs were of brass, its feet were part of iron and part of clay. In proportion as a joint-stock bank depends upon itself, or upon banks based on principles similar to its own, it rests upon a foot of iron; but in proportion as it leans upon a private bank, it rests upon a foot of clay. That clayey portion may suddenly be removed, and then its head of gold will fall to the earth."

SECTION III.

REASONING FROM PARABLES, FABLES, AND PROVERBS, APPLIED TO BANKING.

I AM not aware that parables, fables, or proverbs, have been much employed in reference to banking. We have stated in page 149, that parables and fables do not amount to proof. Proverbs, however, are general principles, which when properly used, prove the individual case to which they are applied. And though parables and fables do not amount to logical proof, they are usefully employed in rendering clearer the proposition we desire to prove. One part of our duty as logicians is to state clearly the proposition we intend to prove. Comparisons, parables, fables, and metaphors are of great use in enabling us to make this clear statement. Half the disputes that exist among writers on banking, arise from their misunderstanding one another. We should endeavour to acquire the art of stating clearly and vividly what it is that we mean; and when we have done this we shall, in most cases, have obviated the necessity for any farther controversy.

We may observe, too, that though a clear statement of a proposition may not amount to a proof of its truth, it does amount to a disproof of those erroneous opinions that may have arisen from a misapprehension of its meaning. All that class of fallacies to which scholastic logicians give the name of *ignorantia elenchi*—a mistake of the question—are immediately refuted when the question is clearly stated. We have given some illustrations of this at the commencement of the Fifth Part of our work.

It may also be observed that examples, analogy, comparison, and contrast are employed both as principles of reasoning and as modes of illustration. And we should learn carefully to distinguish between an illustration and a demonstration. We should examine whether the example or the comparison merely explains the meaning of the speaker, or proves also the truth of the doctrine he wishes to establish.

The art of illustrating a subject, so as to prevent its being misunderstood, and thus to prevent those erroneous opinions that might arise from its misconception, may fairly be considered as a branch of the art of reasoning. We shall, therefore, in this section, extend our observations from parables and fables, to the more general subject of logical illustration.

The chief ways of illustrating a proposition in banking is —1. By Explanation. 2. By Definition. 3. By Description. 4. By Example, or Comparison. 5. By Amplification. 6. By Parables, Fables, or Tales. 7. By Metaphors, or other figures of rhetoric.

1. The principles and operations of banking may be illustrated by explanation, as regards the meaning of the words :—

"The strength of an argument must depend upon the soundness of its principles: but the readiness with which that strength is perceived, will depend very often upon the manner in which the argument may be presented to the mind. Hence, different arguments are drawn up in different forms, according to the subjects discussed, and the character of the audience to whom they are addressed. These different forms chiefly refer to the method, and the style. To be able to reason with the greatest effect, we should study not only the rules of logic, but also the rules of grammar, and endeavour to acquire a facility of expressing the same ideas in differents words."—*Logic for the Million.*

Upon this subject we shall quote the language of Dr. Watts :—

"In your own studies, as well as in the communication of your thoughts to others merely for their information, *avoid ambiguous and equivocal terms as much as possible.* Do not use such words as have two or three definitions of the name belonging to them; that is, such words as have two or three senses, where there is any danger of mistake.

Where your chief business is to inform the judgment, and to explain a matter, rather than to persuade or affect, be not fond of expressing yourselves in figurative language, when there are any proper words that signify the same idea in their literal sense."

"In communicating your notions, use every word as near as possible in the *same sense in which mankind commonly use it;* or which writers that have gone before you have usually affixed to it, upon condition that it is free from ambiguity. Though names are in their original merely arbitrary, yet we should always keep to the established meaning of them, unless great necessity requires the alteration; for when any word has been used to signify an idea, that old idea will recur in the mind when the word is heard or read, rather than any new idea which we may fasten to it. And this is one reason why the received definition of names should be changed as little as possible."

"Learn the art of shortening your sentences, by dividing a long complicated period into two or three small ones. When others connect and join two or three sentences in one by relative pronouns, as which, whereof, wherein, whereto, &c., and by parentheses frequently inserted, do you rather divide them into distinct periods; or at least, if they must be united, let it be done rather by conjunctions and copulatives, that they may appear like distinct sentences, and give less confusion to the hearer or reader.

"I know no method so effectual to learn what I mean, as to take now and then some page of an author, who is guilty of such a long involved parenthetical style, and translate it into plainer English, by dividing the ideas or the sentences asunder, and multiplying the periods, till the language becomes smooth and easy, and intelligible at first reading."

We refer to pages 25 and 249 for examples of this mode of illustration, with reference to banking. We may further observe, that in analysing the language of other writers, it were best to begin by ascertaining the meaning of the substantives, the adjectives, and the verbs, afterward that of the adverbs, and of the modifying or explanatory clauses of the sentences. Thus, in Lord Overstone's account of the principle of the Act of 1844, which we have quoted, we may begin by inquiring what is the meaning of "*currency*"—then of "*metallic* currency"—then of the verb "regulates," and of the clause, "by virtue of its own intrinsic value,"—and, lastly, we may inquire, What are those operations by which a metallic currency does, by virtue of its own intrinsic value, regulate itself?

2. The principles and operations of banking may be illustrated by definition or explication, in regard to the topics of discourse.

"After a banker has furnished his till, and supplied his customers with such loans and discounts as they may require, he has a surplus of cash. A portion of this surplus he will probably invest in the Government funds.

"The reader is of course aware that the 'Stocks,' or the 'Funds,' or by whatever other name they may be called, are debts due from the nation to those persons whose names are entered on the bank-books. The man who holds 100*l.* consols is a creditor to the nation for 100*l.*, for which he receives 3*l.* per annum; and the price of consols is the amount of the money for which he is willing to transfer this debt from himself to another person. Now, if this man knows another who is willing to give him, say, 90*l.* for this 100*l.* consols, they can go to the bank, and the seller, being properly identified, will transfer this 100*l.* consols into the name of the person to whom he has sold it. His account is then closed in the bank-books, and a new account is opened in the name of the buyer; for every holder of stock has an account in the bank ledger, in the same way as bankers and merchants open ledger accounts for their customers.

"But parties do not usually treat with each other in this way. A broker is employed either to buy or sell, as the case may be. The stock-brokers are an association consisting of about 600 persons, who meet together in a building in Capel-court, Bartholomew-lane, close to the Bank. Each broker before admission must find three securities for 300*l.* each, which sum is applied to meet any claims the other members of the 'House' may have upon him during the first two years. The suretyship then ceases. The subscription paid by each member is ten guineas per annum. The House is governed by a committee of thirty persons chosen from the members.

"But, although all the 'members of the House' are called stock-brokers by the public, yet within the House they are divided into two classes, brokers and jobbers. A broker, as the name implies, is an agent who buys or sells for his customers out of the House, and he charges them a commission upon the amount of the stock. A stock-jobber is a stock-merchant: but he does not deal with the public: he deals only with the brokers; and he is at all times ready either to buy or to sell. The price at which he sells is one-eighth more than the price at which he buys.

"Were there no jobbers, a broker would not easily find at all times another broker who had occasion to sell the same amount of stock which he wished to buy, and he would have a difficulty in buying or selling small amounts. But there is no difficulty with the jobbers.

The jobbers will not only buy and sell stock on the same day, but they will buy stock on one day, and agree to sell it at a future day, or *vice versâ*. These future days are called the settling days, being the days on which the members of the House settle their accounts. They are fixed by the committee of the Stock Exchange, and they now occur about once a month.

"Generally, the price for time is higher than the price for money; and the difference between these two prices is called the 'Continuation.' Supposing that the next settling day is a month distant, and the continuation is one-eighth per cent., that amounts to twelve-eighths, or three per cent. per annum. The continuation will vary according to the near approach of the settling day—according to the abundance of money, and the market rate of interest—and according to the abundance or scarcity of stock. The last cause is not so readily understood by the public, and we will therefore explain it. The stock-jobbers, as we have said, are stock-merchants. Of course they are large holders of stock; it is their capital on which they trade. But however large may be the sum they hold, they often agree to sell on the next settling day a much larger sum, expecting that in the mean time they shall buy a large sum, and thus be able to set off one against the other. But sometimes as the settling day approaches, they find this is not the case, and they are consequently under an engagement to 'deliver'—that is, sell—more stock than they hold. What can they do now? They will try to get stock from those who have it, by agreeing to buy it of them *now*, and selling it at the ensuing account day a month hence, at the same price. Thus the jobbers get their stock, and complete their engagements. But sometimes the jobbers are obliged to go farther, and even to offer a premium to parties who will lend their consols. This premium is called 'Backadation,' or 'backwardation;' it is just the reverse of 'continuation,' and implies that the time price of stock is less than the money price. Bankers avail themselves occasionally of both these operations."

3. A principle or operation in banking may be illustrated by description.

"I must tell you what I mean by descriptive reasoning. I mean a description which forms part of a piece of reasoning. I told you at the commencement of my book that any fact in history, or any object in nature, might become the subject of an argument. Now then, if we describe an object with a view to reason about it, I call that descriptive reasoning. For example, were a lecturer on anatomy to describe the eye, with the view of showing its construction to his pupils, that would be a description, and nothing more. Were a theologian to describe the eye in order to show that it must have had an intelligent author, then the description would become a piece of descriptive reasoning.

"In all our reasonings, great use is made of description. When a member of parliament proposes a new law, he commences with *describing* the present state of the law, shows what improvement is necessary, and then proposes his remedy. A barrister opens his address to the jury by a statement of the case; this statement is descriptive; and descriptions of past events, and of good and bad characters, form a large portion of the addresses from the pulpit. In long speeches, generally, there is often much minute detail, and reporters who cut down these speeches for the newspapers usually shorten or omit the descriptions. The reasoning process by which the description is connected with the point to be proved, may exist only in the mind, or it may be expressed in a subsequent stage of the argument."—*Logic for the Million.*

The following illustration is taken from a paper I read before the British Association at Belfast upon "The Laws of the Currency in Ireland:"—

"Having considered the changes that have taken place in the annual amount of notes that have circulated in Ireland since the passing of the Act of 1845, I shall consider the monthly changes in the amount of the circulation.

"Let us take up the returns, and look at any year we please, and we shall find that all the months vary from each other. Beginning at January, the amount of the circulation usually declines—slowly at first, but more rapidly in May, June, and July, until, by the end of August, we arrive at the lowest point. Then, in September, it begins to ascend, and goes on increasing till January, and then again declines till August. Now, let us inquire what are the laws which regulate these monthly variations. I stated that the annual variations were caused by variations in the quantity and price of agricultural produce. But, as no notes could be put into circulation until this produce is brought to market, the monthly circulation must depend upon the quantity of produce brought to market within the month. Now, it has been the custom in Ireland to commence bringing the produce to market immediately after the harvest. Hence arises the increase of the notes in September, and their further increase in the following months. But in the beginning of the year the landlords collect their rents, and receive from their tenants the notes for which this produce has been sold; this brings the notes back to the bank, either to be placed to his credit (if he have an account there), or, otherwise, in exchange for a letter of credit on Dublin, or a bill on London. The circuit of a note, then, is this:—it is obtained from the bank by a corn-merchant, who pays it to a farmer for his corn, which he ships to England. The farmer afterwards pays the note for rent to his landlord, who brings it back to the bank. Every month the bank is issuing and retiring notes, but, from

August to January, it issues more than it retires; and hence the amount of notes in circulation increases, and, from January to August, it retires more notes than it issues, and hence the circulation falls.

"We may notice another feature suggested to us by the Public Returns. We observe that a portion of the circulation consists of notes of 5*l.* and upwards, and another portion of notes under 5*l.*; and it may be useful to inquire if these two classes of notes are subject to the same laws, and whether they rise and fall at the same time, and in exact proportion to each other. Viewing the monthly circulation, we observe that the small notes, like the large notes, are at their lowest amount about the month of August, and at their highest amount about January. But we observe, also, that from August the small notes increase more rapidly than the large ones, and after January they decline more rapidly; so that in every year the proportion of small notes in circulation is greater in January than in August. It may be observed, too, that the circulation of the Belfast banks includes a much larger proportion of small notes than is contained in the circulation of the other banks. To show this, it will be sufficient to analyse one of these returns. Upon the total circulation of all the banks, the proportion of small notes on the 7th of August, 1852, is 49·39 per cent.; upon that of the Bank of Ireland, 34·73 per cent.; the Provincial Bank, 58·82 per cent.; the National Banks, 59·93 per cent.; and the Belfast Banks, 86·55 per cent."

4. The principles or operations of banking may be illustrated by Example, or Comparison.

"Another benefit derived from bankers is, that they transmit money from one part of the country to another.

"There is scarcely a person in business who has not occasion sometimes to send money to a distant town. But how is this to be done? He cannot send a messenger with it on purpose—that would be too expensive. He cannot send it by post—that would be too hazardous. Besides, the sum may be some fraction of a pound, and then it cannot go by post. The post, too, takes a considerable time, as three letters at least must pass on the transaction. If he live in London he may obtain a bank post bill, but he cannot obtain that in the country: and he may not be able to obtain it in London for the exact sum he wants. How, then, is the money to be sent?

"Every country banker opens an account with a London banker. If, then, a person lives at Penzance, and wants to send a sum of money to Aberdeen, he will pay the money into the Penzance bank, and his friend will receive it of the Aberdeen bank. The whole transaction is this: the Penzance bank will direct their agent in London to pay the money to the London agent of the Aberdeen bank, who will be duly advised of the payment. A small commission charged by the Penzance

bank, and the postages, constitute all the expenses incurred, and there is not the least risk of loss."

Managers.—"As managers, it is one of the duties of our office to believe that we are well qualified for the posts we occupy; for were we to believe otherwise, it would be casting a reflection upon those who appointed us. But however conscious we may be that we possess those qualifications which are adapted for the posts we fill, we are still more deeply impressed that any exertions we can make will be attended with little pleasure to ourselves, or advantage to the bank, unless they are stimulated by the example, the kindness, and the confidence of the directors. The manager who does not possess this confidence, resembles the hired Swiss, who enlists in a cause in which he feels no interest. He will merely go through the ordinary routine of discipline; he will be anxious to avoid doing anything by which he may personally incur responsibility; and he will render precisely that degree of service which is just sufficient to entitle him to his pay. But the manager who is conscious that he has the confidence of his directors, feels like the patriot fighting for his country. He is clad in armour bestowed by a superior power; he feels every faculty stretched to its utmost, and he is invigorated by the thought that his exertions are made in the presence of those who will be most anxious to acknowledge and to reward his exertions."

5. A proposition in banking may be illustrated by amplification.

Amplification is a vivid description, in which all the particulars are enumerated, or the circumstances mentioned and placed in such a way, that the impression shall increase as you proceed, and end in a climax.

"Banking also exercises a powerful influence upon the morals of society. It tends to produce honesty and punctuality in pecuniary engagements. Bankers, for their own interest, always have a regard to the moral character of the party with whom they deal; they inquire whether he be honest or tricky, industrious or idle, prudent or speculative, thrifty or prodigal, and they will more readily make advances to a man of moderate property and good morals, than to a man of large property but of inferior reputation. Thus the establishment of a bank in any place immediately advances the pecuniary value of a good moral character. There are numerous instances of persons having arisen from obscurity to wealth only by means of their moral character, and the confidence which that character produced in the mind of their banker. It is not merely by way of loan or discount that a banker serves such a person. He also speaks well of him to those persons who may make inquiries respecting him: and the banker's good opinion will be the

means of procuring him a higher degree of credit with the parties with whom he trades. These effects are easily perceivable in country towns; and even in London if a house be known to have engaged in gambling or smuggling transactions, or in any other way to have acted discreditably, their bills will be taken by the bankers less readily than those of an honourable house of inferior property. It is thus that bankers perform the functions of public conservators of the commercial virtues. From motives of private interest they encourage the industrious, the prudent, the punctual, and the honest—while they discountenance the spendthrift and the gambler, the liar and the knave. They hold out inducements to uprightness, which are not disregarded by even the most abandoned. There is many a man who would be deterred from dishonesty by the frown of a banker, though he might care but little for the admonitions of a bishop."

6. The principles and operations of banking may be illustrated by parables, fables, or tales.

We have stated at page 148 the difference between parables and tales. Some years ago, Miss Martineau published a series of tales, designed to illustrate the principles of political economy. The first of these tales was entitled 'Life in the Wilds,' and described the savage state; the others were representations of the more advanced stages of society. The principles and operations of banking were exhibited in a tale entitled 'Berkeley the Banker.' Mr. Berkeley, the hero of the tale, was a gentleman who had retired from business, but was afterwards induced to become a partner in a bank that ultimately failed. The following were stated to be the principles which the tale was designed to illustrate:—

"In proportion as the processes of exchange become extensive and complicated, all practicable economy of time, trouble, and expense, in the use of a circulating medium, becomes desirable.

"Such economy is accomplished by making acknowledgments of debt circulate in the place of the actual payment: that is, substituting credit, as represented by bank-paper, for gold money.

"The adoption of paper money saves time by making the largest sums as easily payable as the smallest.

"It saves trouble by being more easily transferable than metal money."

"It saves expense by its production being less costly than that of metal money, and by its setting free a quantity of gold to be used in other articles of production.

"A further advantage of paper money is, that its destruction causes no diminution of real wealth, like the destruction of gold and silver coin; the one being only a representative of value,—the other also a commodity.

"The remaining requisites of a medium of exchange,—viz.. that it should be what all sellers are willing to receive, and little liable to fluctuations of value,—are not inherent in paper as they are in metallic money.

"But they may be obtained by rendering paper money convertible into metallic money, by limiting in other ways the quantity issued, and by guarding against forgery.

"Great evils, in the midst of many advantages, have arisen out of the use of paper money, from the neglect of measures of security, or from the adoption of such as have proved false. Issues of inconvertible paper money have been allowed to a large extent, unguarded by any restriction as to the quantity issued.

"As the issuing of paper money is a profitable business, the issue naturally became excessive when the check of convertibility was removed, while banking credit was not backed by sufficient security.

"The immediate consequences of a superabundance of money are, a rise of prices, an alteration in the condition of contracts, and a consequent injury to commercial credit.

"Its ulterior consequences are, a still stronger shock to commercial credit, the extensive ruin of individuals, and an excessive contraction of the currency, yet more injurious than its excessive expansion.

"These evils arise from buyers and sellers bearing an unequal relation to the quantity of money in the market.

"If all sold as much as they bought, and no more, and if the prices of all commodities rose and fell in exact proportion, all exchanges would be affected alike by the increase or diminution of the supply of money. But this is an impossible case; and therefore any action on the currency involves injury to some, while it affords advantage to others.

"A sudden or excessive contraction of the currency produces some effects exactly the reverse of the effects of a sudden or excessive expansion. It lowers prices, and vitiates contracts, to the loss of the opposite contracting party.

"But the infliction of reverse evils does not compensate for the former infliction. A second action on the currency, though unavoidably following the first, is not a reparation, but a new misfortune.

"Because the parties who are now enriched are seldom the same that were impoverished by a former change; and *vice versâ*: while all suffer from the injury to commercial credit which follows upon every arbitrary change.

"All the evils which have arisen from acting arbitrarily upon the

currency, prove that no such arbitrary action can repair past injuries, while it must inevitably produce further mischief.

"They do not prove that liability to fluctuation is an inherent quality of paper money, and that a metallic currency is therefore the best circulating medium.

"They do prove that commercial prosperity depends on the natural laws of demand and supply being allowed to work freely in relation to the circulating medium.

"The means of securing their full operation remain to be decided upon and tried."

7. The principles or operations of banking may be illustrated by metaphors, or other figures of rhetoric.

"Of comparison as a principle of reasoning we have already treated. Here comparison is brought before us in the way of metaphor. In this point of view it can never amount to proof. But, nevertheless, its consideration is fairly within the province of logic. One part of our duty as logicians is to state clearly the propositions we intend to prove. Metaphorical comparisons are of great use in enabling us to make this clear statement. Half the disputes that exist among men arise from their misunderstanding one another. We should endeavour to acquire the art of stating clearly and vividly what it is that we mean. And when we have done this, we shall in most cases have obviated the necessity for any further controversy.

"Parables, like comparisons, are not proofs. They are, however, vivid illustrations; and the more minute the particulars, the stronger is the illustration. There is, of course, always an analogy between the illustration and the matter to be illustrated. But we must distinguish between a logical and a metaphorical analogy. For instance, the analogy between an animal who had fallen into a pit, and a man who was lame, was a logical analogy, and it was clear that if one might be relieved on the sabbath-day, so might the other. But the analogy between the kingdom of heaven and a grain of mustard-seed was a metaphorical analogy, and the rapid increase of the mustard-seed was no proof of the future rapid spread of Christianity, though it was a vivid representation of it."—*Logic for the Million.*

The following are examples:—

Capital.—A banker is a depositary of capital. He lends to those who wish to borrow, and he borrows of those who wish to lend. He is like the fly-wheel of an engine. He either receives or communicates power as the occasion may require, and thus maintains the firmness and increases the efficiency of the machinery of commerce.

Deposits.—When a bank is established in a neighbourhood, sums of money are lodged upon interest. Individually they may be of small

amount, but collectively they make a considerable sum, which the banker employs in granting facilities to those who are engaged in trade and commerce. Thus these little rivulets of capital are united, and form a powerful stream, which propels the wheels of manufacture, and sets in motion the machinery of industry.

Joint-Stock Banks.—It is a law of our nature, that no six men possess as much strength as is possessed by five hundred men. And so long as this law remains unrepealed, so long will joint-stock banks be superior to private banks. The hurricane may pass harmlessly over the forest where the trees support and shelter one another, while the single oak that stands exposed on the plain will be uptorn by the roots, and scattered in broken fragments to the winds, spreading ruin and desolation upon all within its reach.

A New Bank.—I feel quite sure that the vigorous plant we have met this day to put into the soil, will spring up to be a great tree, spreading wide its branches, till all the neighbouring districts are covered with its shade.

London Agencies.—When I see a country joint-stock bank appointing a private bank to be its London agent, it reminds me of the image that appeared in the visions of Nebuchadnezzar. Its head was of gold, its breast was of silver, its thighs were of brass, its feet were part of iron and part of clay. In proportion as a joint-stock bank depends upon itself, or upon banks based upon principles similar to its own, it rests upon a foot of iron. But in proportion as it rests upon a private bank, it rests upon a foot of clay. That clayey portion may suddenly be removed, and then its head of gold will fall to the earth.

The London and Westminster Bank.—One of the earliest objects to be attained, was to adapt the principles of joint-stock banking to the habits and practices that obtained in London. It is quite true that banking must be adapted in different places to the practices of trade and the habits of the people. It was, therefore, desirable, that while we secured all the advantages of our principles, we should deviate as little as possible from the practice of the London bankers. We had to launch our vessel on an ocean in which no such vessel had ever before appeared. We had not to traverse a sea which had been previously surveyed, and every danger of the coast marked out upon the map. We had to take our soundings as we advanced; to watch the juttings of the coast, the changes of the current, the shiftings of the wind, and to guard with incessant care against the pirates that might mark us for their prey.

London and Westminster Bank.—Perhaps we may be justified on the present occasion in attaching more than ordinary importance to the

practical department of our bank, inasmuch as this was the point upon which our opponents predicted we should most assuredly fail. "Your theory," they said, "is very beautiful; it is a very fine speculation; the sun shines around you, the wind is fair and the sea is calm; but once launch your vessel into the deep, and you will find that beneath the surface there are rocks, and sandbanks, and dangers by which you will soon be wrecked." And, to do justice to our opponents, it must be acknowledged that these predictions did not argue on their part any want of sagacity. It is quite true that we have been exposed to all those dangers and difficulties to which it was predicted we should be exposed. The only difference between the prediction and the event is, that instead of the difficulties conquering us, we have conquered the difficulties.

London and Westminster Bank.—During the year 1836 we had difficulties in common with all London bankers, we had difficulties in common with all joint-stock banks, and we had difficulties peculiar to ourselves. A few months before this we stood alone; above us the whole financial horizon was wrapped in darkness which seemed to thicken as we advanced. Around our path were placed the entanglements of the law, which made every step to be attended with danger; behind us we heard the muttering thunder of a parliamentary committee; on either side of our path we were assailed by the private bankers, who watched our footsteps, and would have rejoiced at our downfall; while before us stood the gigantic figure of the Bank of England, with uplifted arm, ready to strike us to the earth.

London and Westminster Bank.—It was said of Ishmael, that his hand was against every man, and every man's hand was against him. One part of this description might have been applied to ourselves. Every man's hand was against us. The private bankers excluded us from the clearing-house, the Bank of England pursued us into parliament, and prevented our obtaining the power of suing and being sued by our registered officer. They pursued us through the courts of law, to prevent us accepting the bills of our country connexions. They denied us the ordinary privilege of a drawing account. They refused to take the notes of banks founded on principles similar to our own, or to discount bills bearing their endorsement; while pamphlet after pamphlet were launched by her directors, in denunciation of the principles on which our bank was established. So long as we are thus assailed, so long will we stand undaunted before our foes, and breathe the language of hostility and defiance. But happy shall we be when this season of conflict is over; happy shall we be when we can turn our swords into ploughshares, and retire from the field of warfare to the peaceful pursuits of our professional engagements. We should hail with rapture the approach of a banking millennium, in

which all the banking institutions of our country should be at peace with each other, and even the lion of the Bank of England should lie down with the lamb of joint-stock banking.

While banking, on the one hand, is illustrated by metaphorical comparisons, it will, on the other hand, sometimes supply comparisons to illustrate other subjects.

"Descartes, whose habits were formed in solitude and meditation, was silent in mixed company. It was said that he had received his intellectual wealth from nature in solid bars, but not in current coin. Or, as Addison expressed the same idea, by comparing himself to a banker, who possessed the wealth of his friends at home, though he carried none of it in his pocket."—*D'Israeli's Curiosities of Literature.*

"Fallacious reasoning may be compared to a perplexed and entangled *mass of accounts,* which it requires much sagacity and close attention to clear up and display in a regular and intelligible form, though when this is once accomplished the whole appears so perfectly simple, that the unthinking are apt to undervalue the skill and pains which have been employed upon it."—*Dr. Whately.*

We will now notice the fallacy of illustration. This occurs when we admit illustration for proof. To make a proposition clear is not the same thing as proving it to be true. But there is something so attractive in a clear illustration that we are ready sometimes to admit, without further reasoning, the truth of the doctrine it is intended to establish. This often occurs in public speaking. If an orator has an agreeable voice and a good address, and excels in clear illustration, he will often find that his doctrines receive a ready acceptance, though unsupported by sound logical reasoning. Against such delusions, bankers should be on their guard. The professional accountant may describe very clearly how the fraudulent insolvent, whose books he has examined, got into difficulties; but this is no proof that his creditors should take the composition proposed. The barrister may declaim strongly against acts of folly or of immorality committed by the directors or managers of a joint-stock bank; but that is no proof of the unsoundness of the principles of joint-stock banking. The political economist may correctly enumerate the causes of the fluctuations in the foreign exchanges; but

that is no proof that those fluctuations ought to regulate the currency. He may show the mode of the exportation and the importation of the precious metals; but that is no proof that the amount of bank notes in circulation ought to be made subject to similar changes.

While on the one hand we must not suppose that illustration is reasoning, we must not suppose on the other hand that no reasoning is given to us in the form of illustration. Some writers who wish to conceal their opinions, will sometimes suggest their arguments in this form; and others, by a simple exposition of their doctrines, will adopt the most efficient mode of establishing their truth. In such cases the exposition is usually confined to one of the propositions of the syllogism, the other being too obvious to require proof. The major proposition, constituting the general principle, is assumed to be true, or at least admitted to be true. The minor proposition, showing the application of the general principle to a particular case, is the subject of exposition. The reader is then left to draw his own conclusion. Thus, a barrister who seems to be merely describing the frauds charged upon a banker, is in fact proving the minor proposition of the following syllogism:—

All who commit fraud ought to be punished.

This banker has committed fraud.

Therefore, this banker ought to be punished.

We have stated that proverbs are general principles; and reasoning from proverbs is applying general principles to individual cases. Such reasoning is not very common in banking, as we have no proverbs that have a special application to banking business. Sometimes, when a banker is considering the nature of his investments, he may observe that it is not well to have "too many eggs in one basket;" or he may observe of a customer who is involved in numerous engagements, that "he has too many irons in the fire." The book on 'Domestic Cookery,' published by Mrs. Glass, contains directions for cooking a hare, beginning with "Catch a hare," &c. These words are now often employed as a caution to those who build conclusions upon events that have

not yet occurred, and which may never occur. You say, that as soon as you have become rich, you will retire from business; *first catch your hare*—first get rich, and then consider what you will do. The same admonition is given in the proverb—"Don't reckon your chickens before they are hatched."

Proverbs may be misapplied, and hence lead to erroneous conclusions. It was once observed at a Board of Directors, that if the salaries of their managers should not be increased, some of them might be tempted to transfer their services to other banks. A member observed, "Let them go; there are as good fish in the sea as ever came out of it." The reply was, "True; but you have to catch 'em."

SECTION IV.

REASONING FROM WRITTEN DOCUMENTS APPLIED TO BANKING.

In Section the Fourth, Part the Third, we have considered the mode of reasoning from written documents—here we shall enumerate those written documents that have a reference to Banking; these are chiefly—1. Acts of Parliament; 2. Deeds of Settlement; 3. Deeds of Transfer; 4. Bonds of Security by the Officers; 5. Cheques on Banks; 6. Bills of Exchange; 7. Writings connected with Leasehold and Freehold Property; 8. Letters of Guarantee for advances to other parties; 9. Statistical Returns; 10. Agreements, Letters, and other occasional Writings; 11. Lectures on the Principles and Literature of Banking.

1. Acts of Parliament.—We have stated, at page 17, that it was a matter of dispute in the United States of America, whether the constitution of the United States gave to Congress the power of establishing a national bank. The following summary of the arguments on both sides is taken

from Mr. Justice Story's 'Commentaries on the Constitution of the United States:'—

"One of the earliest and most important measures, which gave rise to a question of constitutional power, was the Act chartering the Bank of the United States in 1791. That question has often since been discussed; and though the measure has been repeatedly sanctioned by Congress, by the executive, and by the judiciary, and has obtained the like favour in the great majority of the States, yet it is, up to this very hour, still debated upon constitutional grounds, as if it were still new and untried. It is impossible, at this time, to treat it as an open question, unless the constitution is for ever to remain an unsettled text, possessing no permanent attributes, and incapable of having any ascertained sense; varying with every change of doctrine and of party, and delivered over to interminable doubts.

"The reasoning, upon which the constitutionality of a national bank is denied, turns upon the strict interpretation of the clause, giving auxiliary powers necessary and proper to execute the other enumerated powers. It is to the following effect. The power to incorporate a bank is not among those enumerated in the constitution. In the next place, all the enumerated powers can be carried into execution without a bank. A bank therefore is not *necessary*, and consequently not authorized by this clause of the constitution. It is urged that a bank will give great facility or convenience to the collection of taxes. If this were true, yet the constitution allows only the means which are *necessary*, and not merely those which are *convenient*, for effecting the enumerated powers. If such a latitude of construction were allowed, as to consider convenience as justifying the use of such means, it would swallow up all the enumerated powers. Therefore, the constitution restrains Congress to those means, without which the power would be nugatory.

"The reasoning by which the constitutionality of the national bank is sustained is, in part, contained in the following summary. The powers confided to the national government are unquestionably, so far as they exist, sovereign and supreme. It is not and cannot be disputed, that the power of creating a corporation is one belonging to sovereignty. But so are all other legislative powers; for the original power of giving the law on any subject whatever is a sovereign power. If the erecting of a corporation be an incident to sovereignty, and it is not prohibited, it must belong to the national government in relation to the objects entrusted to it. The true difference is this: where the authority of a government is general, it can create corporations in all cases; when it is confined to certain branches of legislation, it can create corporations only as to those cases. It cannot be denied, that implied powers may be delegated as well as express. It follows that a power to erect corporations may as well be implied, as any other thing, if it be an instrument, or means of carrying into execution any specified power.

"It is true, that among the enumerated powers we do not find that of establishing a bank or creating a corporation. But we do find there the great powers to lay and collect taxes, to borrow money, to regulate commerce, to declare and conduct war, and to raise and support navies. Now, if a bank be a fit means to execute any or all of these powers, it is just as much implied as any other means. If it be 'necessary and proper' for any of them, how is it possible to deny the authority to create it for such purposes? There is no more propriety in giving this power in express terms, than in giving any other incidental power or means in express terms.

"That a national bank is an appropriate means to carry into effect some of the enumerated powers of the government, and that this can be best done by erecting it into a corporation, may be established by the most satisfactory reasoning. It has a relation, more or less direct, to the power of collecting taxes, to that of borrowing money, to that of regulating trade between states, and to those of raising and maintaining fleets and armies. And it may be added, that it has a most important bearing upon the regulation of currency between the States. It is an instrument which has been applied by governments, in the administration of their fiscal and financial operations; and in the present times it can hardly require argument to prove, that it is a convenient, a useful, and an essential instrument in the fiscal operations of the United States."

By the statute 1833, 3 & 4 Wm. IV. c. 98, it was declared to be the law that joint-stock banks might be established in London. Under this statute the London and Westminster Bank was formed. But as it did not give them the power of suing and being sued by their "public officer," they introduced into Parliament a bill to give them this privilege. In their first report, delivered March 4, 1835, the directors refer to this bill.

"The directors will now revert to the difficulties they have had to encounter. These have been of no ordinary kind. They have been caused by an opposition, in some degree natural, but carried to an unfair extent, by existing establishments, and likewise by the unaccountable course adopted by Government, who seem to have been deterred by the same interested parties from giving effect to their own law.

"The opposition of the private bankers was manifested at an early period, by their refusal to permit any clerk to attend at the clearing-house on behalf of this bank. The clearing-house has been in existence for upwards of sixty years; and, although founded in the first instance for the accommodation of such London bankers as chose to avail them-

selves of it, yet it has become entwined with the mode of settling accounts in several branches of business, and is, for all practical purposes, a public institution.

"The opposition of the Bank of England began by their refusal to grant to this company the common convenience of a drawing account,—a convenience granted, as a matter of course, to every respectable firm who may choose to apply for it. But their hostility, as well as that of the Government, was more strongly shown by their opposition to the bill introduced to Parliament for facility of suit. This, it was conceived, was a course that no party could adopt after the explicit manner in which the law had been laid down in the preceding session of Parliament.

"The clause upon the subject of joint-stock banks in London, introduced into the Bank Charter Renewal Act, and that, too, with the consent of the Bank itself, was not only declaratory that the law, as previously existing, did not extend to the prevention of such banks carrying on business in London, but it enacted that for the future they should be able to do so. This enactment being made, it was presumed that it would be carried into effect in the ordinary manner.

"A technical form which requires that all parties to a suit shall be named in the record exists as an impediment to the legal operation of large companies. It has been the invariable custom of Parliament, which has not provided for the removal of this obstruction by any general law, to grant to such companies, on special application, a right to sue and be sued in the name of one or more of their officers. The directors therefore applied to Parliament for this power, as a necessary consequence of the clause legalizing the company.

"They were early assured by eminent counsel that the bank could be carried on legally and substantially by means of trustees; but when there were two modes of conducting the same proceeding—one well known to the public, the other comparatively unknown—the directors naturally took that course which best accorded with the public habits and understanding. Although the bill was opposed with a zeal and tenacity rather out of the usual course of Parliamentary proceedings, yet, in the same House of Commons which a few months previously had passed the Bank Charter Act, it was carried by large majorities, through each successive stage—viz., on the second reading, by a majority of 108; in committee, after the fullest and ablest argument by counsel on both sides, by a still greater proportionable majority; and again, on the third reading, by a majority of 61.

"Notwithstanding these majorities in the House of Commons, the opposition was continued in the House of Lords.

"Counsel were heard at the bar of that House; and upon the suggestion of the Government, questions were framed for the consideration of the judges, who declined answering them. Under these extra-

ordinary and inexplicable circumstances, and the session drawing to a close, it was deemed impossible to bring on the second reading with any chance of a fair consideration of the question."

In the statute to which we have referred, it is enacted—

"Be it therefore declared and enacted, that any body politic or corporate, or society, or company, or partnership, although consisting of more than six persons, may carry on their trade or business of banking in London, or within sixty-five miles thereof, provided such body politic or corporate, or society, or company, or partnership, do not borrow, owe, or take up in England, any sum or sums of money on their bills or notes payable on demand, or at any less time than six months from the borrowing thereof, during the continuance of the privileges granted by this Act to the said governor and company of the Bank of England."

It was supposed that this clause was intended merely to prevent any joint-stock bank issuing notes in London. But the directors of the Bank of England contended that it prevented a London joint-stock bank from accepting bills drawn by its country agents. The directors of the London and Westminster Bank have thus referred to the action brought against them by the Bank of England upon this matter:—

"The active opposition of the Bank of England has been again manifested, by its giving notice within these few days of its intention to try the question of our power to accept bills of exchange drawn at a shorter date than six months. Several months ago the Bank of England was aware of the proceedings of the London and Westminster Bank in this respect, but not until now has any step been taken.

"The directors of the London and Westminster Bank are most ready to meet the Bank of England in any court of justice on the subject; for, having obtained the best legal advice, they feel quite confident of a favourable result. They have no desire to infringe the privileges of the Bank of England, but they are equally determined to protect the rights of the London and Westminster Bank.

"In reference to the measures, mentioned in the last report as threatened by the Bank of England, the directors have now to state that the Bank of England has at length raised in a legal shape the question whether the London and Westminster Bank can accept the bills of their country and foreign customers drawn at less than six months after date or sight. It is a question which, however it may be determined, cannot arrest the successful progress of the bank. But the directors having commenced accepting from the origin of the establish-

ment under the able advice of the present counsel of the Bank of England —having since taken much pains to have the subject thoroughly elucidated,—and having engaged the most eminent counsel,—look with confidence to a favourable issue, and it is their anxious desire to obtain a decision as quickly as possible.

"The directors have further to state, that although the question in dispute is confined to the single point of accepting bills, the Bank of England introduced into their proceedings against the London and Westminster Bank charges of violating the exclusive privilege of issuing notes possessed by the Bank of England. The directors are justified in condemning the resort to these charges, for the Bank of England have been obliged to abandon them altogether, and to admit that they had not any foundation. The directors much regret that such a course should have been adopted towards this establishment; but, as the main question at issue is still before a legal tribunal, they consider they will best discharge their duty by abstaining at present from any further comments on the subject."

Notwithstanding these anticipations, the Master of the Rolls, in the beginning of the year 1837, issued an injunction restricting the London and Westminster Bank from accepting bills drawn at less than six months after date, upon the grounds that this would be an invasion of the charter of the Bank of England. The process by which the court arrived at this conclusion is exceedingly ingenious: If a country bank draw upon a London bank, say at twenty-one days after date, for money in the hands of the London bank, then the London bank is supposed to hold this money for the payment of the bill at the end of the twenty-one days. *Ergo*, the London banker "borrows, owes, or takes up money" upon this bill or note during the term until it shall become due; *ergo*, the London bank *takes up* money upon *its* bills or notes for a less term than six months; *ergo*, the London bank infringes the privileges of the Bank of England. Upon this point we quote 'Grant's Laws of Banking.'

"As the right of the customer is to draw out the whole of the sum he deposits with the banker at any time when he shall so please, the acceptance by the banker of a bill drawn upon him by his customer against the amount of the balance in his favour, and made payable at a distant day, is in effect a borrowing of the sum until that day by the banker; for the customer, by drawing the bill, consents that that which is payable immediately shall not be payable until the expiration of the

bill, and such acceptance by a banker was held to be a borrowing or owing of money upon a bill within the meaning of the former Bank of England Acts, 3 & 4 Will. IV. c. 98, and 7 Geo. IV. c. 46, which, in certain circumstances, forbade such borrowing, &c."

2. Deeds of Settlement.—This is the deed of partnership which must be signed by all the shareholders—it fixes the name of the bank, the places where business is to be carried on, and the denomination and number of the shares. It regulates the appointment of directors, the qualifications of shareholders, and the mode of holding meetings, transferring shares, and making dividends. It also provides for the winding-up the affairs of the bank in case it should not be successful.

The Committee of the House of Commons appointed, in the year 1836, to inquire into the operation of the Act of 7 Geo. IV. c. 46, for permitting the establishment of joint-stock banks, stated—

"Your committee have had before them the deeds of settlement of the greater number of the existing joint-stock banks, and they proceed to submit to the House an analysis of some of their leading provisions.

"Though the general objects of these establishments are much alike, yet there are some variations in their deeds of settlement which it may be material to point out.

"First, as to the power of altering the regulations of the company.

"The active duties are generally delegated to a small body called the directors, while the main body of proprietors reserve to themselves the power of selecting the directors, and of altering from time to time the rules by which the directors are to be governed. Indeed, it might have been expected that the proprietors would always have reserved to themselves this power; nor should this general rule have been noticed, had it not been necessary to point out a single exception to it, in the case of one particular company, in which all the powers of the company are vested in the directors of the central bank, till January, 1838, and even after that date this authority is only to be controlled by the 'general board of directors,' consisting of the central directors themselves, and of the local directors of branch banks, appointed by them. The deeds of all the other companies expressly give a power to the shareholders to make new laws and regulations.

"Secondly, as to the mode of conducting the business of banking.

"This is for the most part set out in general terms. Some banking companies content themselves with defining the business to be 'bank-

ing in all its branches;' in other cases, it is called 'the business of bankers.'

"Advancing money on real security is in no instance forbidden. The deeds of three companies are silent on the subject; the rest expressly allow it.

"The majority of deeds are silent on the subject of the purchase of land. The _____ Banking Company expressly allows it. The _____ Banking Company and the Union Banking Company expressly forbid it.

"An advance of money on mining concerns is in no instance expressly allowed; in many it is expressly forbidden; in the majority, it is passed over in silence.

"Advances of money upon any 'public foreign government stock, or the stock of any foreign chartered public company,' is directly sanctioned in the deeds of four banking companies. Investment in foreign government stock or funds is allowed by the deed of another bank. Such advances are expressly forbidden by many of the deeds, and are passed over in silence by many others.

"In no instance is the company forbidden to become the purchaser of its own shares; but, on the contrary, power is expressly given to do so by means of the deeds, and that to any amount. The only modifications of this power which your committee have found, are in the case of one banking company, in which the directors are authorized to purchase shares in the case only of a refusal to admit as a proprietor the person proposing to buy; and in the case of another bank, the number of shares to be bought in by the directors is restricted to forty.

"Thirdly, as to the degree of publicity to be given to the proceedings.

"No principle seems to be more attended to, or prominently put forward, than that of preserving secrecy as to the state of the accounts of the customers of the banks. To this principle there does not appear to be an exception.

"The directors are in general required to sign a declaration, pledging themselves to observe secrecy as to the transactions of the bank with their customers, and the state of the accounts of individuals. In some of the companies, this declaration is also to be signed by all the clerks and officers. One banking company goes so far as to require an oath to this effect. If the proprietors are dissatisfied with the statement of accounts made by the directors, a power is generally reserved to appoint auditors or inspectors for the examination of the books; but these auditors or inspectors are required to sign a similar declaration of secrecy.

"No proprietor, not being a director, is entitled to inspect any of the books of the company.

"The directors are in general bound to exhibit to the general meeting of the shareholders a summary or balance-sheet of their affairs, and to

make such further statement or report as the directors may deem expedient and conducive to the interests of the company. In the case of one of these banks, even this is not obligatory by the terms of the deed, which leave it to the discretion of the directors whether they do or do not exhibit a balance-sheet. In a very extensive bank, the proprietors annually appoint auditors to examine the affairs of the company, and to report thereon.

"In some of the companies the principle of secrecy is carried still further: two of the directors, selected from the rest, are the exclusive depositors of the power of inspecting the private accounts of customers. These persons are sometimes called 'confidential directors.' This provision is stated to be made 'in order that the credit and private transactions of individuals may be preserved inviolate.' Sometimes they are called 'managing directors;' sometimes 'special directors.' In other companies, though all the directors have the power of inspection of the accounts of customers, two of the directors are selected to inspect bills and notes, 'in order to prevent the exposure of such bills of exchange and promissory notes as may pass through the bank.' These two directors are called 'the bill committee.' In two of the companies, a single person, called 'the manager,' has the exclusive power of inspecting bills and notes.

"Fourthly, as to the terms on which the company is to be dissolved.

"The deeds of all these companies contain some provision for dissolution in certain contingencies. It is in general provided that a dissolution of the company shall take place by reason either of a certain amount of loss, or of a voluntary agreement. Dissolution by reason of loss in the great majority of the deeds is provided for in the following manner.

"It is necessary to premise that the directors of each of these companies are bound to set aside a certain portion of the profits to form a fund to meet extraordinary demands, which fund is sometimes called the 'surplus fund,' sometimes the 'reserve fund,' but more usually the 'guarantee fund.' The ordinary provision for dissolution is to this effect:—That if the losses sustained shall at any time have absorbed the whole of this guarantee fund, and also one-fourth of the capital paid up, then any one shareholder may require the dissolution of the company, which shall take place accordingly, unless two-thirds in number and value of the shareholders shall be desirous of continuing the company, and shall purchase the shares of those proprietors who wish to withdraw. In one bank the dissolution of the company takes place upon a loss of one-fifth instead of one-fourth of the capital. In two other banks no mention is made of the guarantee fund.

"The provision of the great majority of deeds, as above stated, is, that in the event of a given amount of loss, any one shareholder may propose the dissolution. In some, three shareholders are required.

In the Banking Company A. the requisition for dissolution must be made by ten shareholders holding 200 shares; in the Bank B. by one-fourth of the company; but if the loss amount to one-half the capital, then by any single shareholder.

"By the general provisions of the great majority of deeds, the dissolution of the company, though duly proposed, may be averted by two-thirds of the proprietors; but in some there exists no such restriction; and on the occurrence of a given amount of loss, the dissolution, if proposed, must necessarily take place. In other instances, on the appearance of a given amount of loss, the dissolution is to take place immediately, even though no partner should propose it."

Among the provisions of the Act 7 & 8 Vic. c. 113, passed in 1844, to regulate joint-stock banks in England, are the following enactments:—

"IV. And be it enacted, That the deed of partnership of every such banking company shall be prepared according to a form to be approved by the Lords of the said committee, and shall, in addition to any other provisions which may be contained therein, contain specific provisions for the following purposes (that is to say)—

"First, For holding ordinary general meetings of the company, once at least in every year, at an appointed time and place.

"Second, For holding extraordinary general meetings of the company, upon the requisition of nine shareholders or more, having in the whole at least twenty-one shares in the partnership business.

"Third, For the management of the affairs of the company, and the election and qualification of the directors.

"Fourth, For the retirement of at least one-fourth of the directors yearly, and for preventing the re-election of the retiring directors for at least twelve calendar months.

"Fifth, For preventing the company from purchasing any shares, or making advances of money, or securities for money, to any person on the security of a share or shares in the partnership business.

"Sixth, For the publication of the assets and liabilities of the company once at least in every calendar month.

"Seventh, For the yearly audit of the accounts of the company, by two or more auditors, chosen at a general meeting of the shareholders, and not being directors at the time.

"Eighth, For the yearly communication of the auditors' report, and of a balance-sheet, and profit and loss account, to every shareholder.

"Ninth, For the appointment of a manager, or other officer to perform the duties of manager.

"And such deed, executed by the holders of at least one-half of the shares in the said business, on which not less than ten pounds on each such share of one hundred pounds, and in proportion for every share of

larger amount, shall have been then paid up, shall be annexed to the petition; and the provisions of such deed, with such others as to her Majesty shall seem fit, shall be set forth in the letters patent."

The fourth provision, "for the releasement of at least one-fourth of the directors yearly," has since been repealed by the statute 1856, 19 & 20 Vic. c. 100.

The following is a case that has given rise to considerable reasoning:—

"*Advances to Directors, &c.*—Experience has shown the besetting evil of joint-stock banking companies to be a too great readiness to make advances, and that, too, without proper security, and in many cases the advances have been made to other joint-stock concerns. Now, it is very material, in case of an application for accommodation of this kind, by the directors of a joint-stock trading company, to the directors of a bank, for the latter to ascertain whether the former have power to borrow given them by the deed of settlement, and next to see whether theirs is one of the extremely few cases in which the law implies an authority to borrow money from the nature of the dealings and business of the company; unless one or other of these is the case, money advanced by the bank will not be debt due to the bank from the trading company, and cannot be recovered as such."—*Grant's Laws of Banking.*

3. Deeds of Transfer.—The following is the form of a deed transferring shares in a joint-stock bank:—

This indenture, made the_____day of_____18_____, between_____of_____of the first part; _____ of_____of the second part; and_____of the City of _____trustees (appointed by the board of directors of the _____Banking Company) of the covenant hereinafter contained of the third part.

Whereas the said_____has become the purchaser, with the approbation of the said board of direction, of_____shares in the capital of the said company: on each of which shares the sum of _____pounds still remains unpaid.

Now this indenture witnesseth, that in consideration of the sum of_____ at or before the sealing and delivery of these presents paid by the said _____to the said_____the receipt of which said sum of_____the said _____ doth hereby acknowledge, and from the same and every part thereof, doth release and for ever discharge the said _____ his heirs, executors, administrators, and assigns: the said_____hath bargained,

sold, and assigned, and by these presents doth bargain, sell, and assign unto the said_____his executors, administrators, and assigns, all those the said shares of his the said _____in the capital of the_____Banking Company, and all benefits, advantages, powers, and privileges attending the same; to have, hold, receive, and take, the said shares hereby assigned, and the said benefits, advantages, powers, and privileges attending the same, unto the said _____ his executors, administrators, and assigns, for his and their own use and benefit.

And the said_____doth hereby, for himself, his heirs, executors, and administrators, covenant, promise, and agree, with and to the said_____and _____ their executors and administrators, that in respect of the share hereby assigned, and all and every other share and shares which the said_____ may hereafter purchase in the capital of the said company, he, the said _____ his heirs, executors, or administrators, shall and will, well and truly, in all respects, observe, perform, and keep, all and singular the covenants, agreements, and provisions, contained in the deed of settlement of the said company, bearing date the_____day of_____185_____, so far as the same ought on his or their parts to be observed, performed, and kept.

In witness whereof, the said parties to these presents have hereunto set their hands and seals, the day and year first above-written.

Witness to the identity and signature of_____ _____ } _____

Signed, sealed, and delivered by_____ } _____

In the presence of_____

Several cases have occurred in which much reasoning has been expended upon the validity of the transfer of shares.

"*Members, or Shareholders.*—Let us next inquire, who are meant by members, or shareholders. Now, in the inquiry, whether any person is a subsisting member, it is often necessary to observe, whether the transfer from the shareholder, from whom he bought, has been made according to the requirements of the deed of settlement: thus, if it be a provision of the deed, that the consent of a board of directors shall be necessary to perfect a transfer of shares, it is indispensable to ascertain what this consent is, how it is to be signified, what is a board of directors, &c. However, though a transfer may be void, at law, for want of a proper consent of a duly constituted board of directors, it may be supported, in equity, where the circumstances are, that it has been made in the Share Registry Book, and three directors have given (as was usual) a certificate of the transfer; and a return has been made to the Inland Revenue officers, that the transferor had ceased to be a member, and, besides, the transferee has been treated as a shareholder

by the directors; received dividends; had sent to him the circulars of general meetings, and notices of calls, and had attended meetings."—*Grant's Laws of Banking.*

4. Bonds of Security by the Officers.—In all banks the clerks give sureties for their integrity—usually, two of 500*l.* each; and in some banks, these amounts are increased on accession to higher offices—for a cashier, the amount is 2,000*l.*; and for a manager, 5,000*l.* The following may be the form of a bond for a clerk:—

"Know all men by these presents, that *A. B.*, *C. D.*, and *E. F.* are held and firmly bound to *W. X.* and *Y. Z.*, in the penal sum of *one thousand* pounds of lawful money of Great Britain, to be paid to the said *W. X.* and *Y. Z.*, or their certain attorney, executors, administrators, or assigns, for which payment to be well and truly made, we bind ourselves and each of us, and our and each of our heirs, executors, and administrators, and the heirs, executors, and administrators of any three or two of us jointly, severally, and respectively firmly by these presents. Sealed with our seals. Dated this _____

"Whereas the above-bounden *A. B.* has been appointed a clerk in a certain public company, called the _____, of which company and for the general purposes thereof the above-named *W. X.* and *Y. Z.* have been appointed trustees. And it was agreed that on the appointment of the said *A. B.* he should with sureties enter into a bond to guarantee his fidelity and honest conduct. And whereas the above-bounden *C. D.* and *E. F.* have at the request of the said *A. B.* agreed to become surety for him as aforesaid to the extent of *five hundred* pounds each. Now the condition of the above-written obligation is, that if the said *A. B.* do and shall, while he shall continue in the service of the said company as such clerk, diligently and faithfully serve them, and devote the whole of his time and attention to their business, and give such reasonable attendance at their office, as the directors or manager for the time being of the said company shall from time to time require; and do and shall keep all the secrets of the said company, and inform the directors of the said company for the time being of all such letters, writings, papers, and occurrences whatsoever, as shall from time to time come to his knowledge respecting the said business; and do and shall from time to time account for and make over to the directors or manager for the time being all such cash, bills, notes, and other securities as shall from time to time come or without his wilful default might have come to his hands, and shall not embezzle, conceal, or waste, nor permit (as far as in him lies) to be embezzled, concealed, or wasted by others, any of the property of the said company, or which shall have been entrusted to their care. And also if the said

A. B. do and shall in all other respects diligently, skilfully, and faithfully demean and conduct himself as such clerk of the said company. And moreover, if they the said *C. D.* and *E. F.*, their heirs, executors, and administrators, or some of them, shall and do well and sufficiently save harmless and keep indemnified the said company and the directors and all other members thereof from and against all losses, costs, charges, damages, and expenses, which shall or may happen or come to them for or by reason of any act, matter, or thing whatsoever wilfully and improperly done, or wilfully and improperly omitted to be done by the said *A. B.* in or during the said service, then the above-written obligation shall be void, otherwise the same shall be in full force. Provided always, and it is hereby declared, that under the said obligation the said *C. D.*, his heirs, executors, or administrators, shall not be liable to a greater sum in the whole than *five hundred* pounds; nor the said *E. F.*, his heirs, executors, or administrators, to a greater sum in the whole than *five hundred* pounds. As witness the hands and seals of the said parties."

The following cases may give rise to reasoning:—

"Another point to be considered is, that a guarantee, for the faithful services of a clerk, given at a time when his employment comprises a certain routine of duties, will not extend to cover other, or additional, duties that may be imposed on, or accepted by him; thus, if a clerk to a bank, for whose good conduct, *as clerk*, a guarantee has been given, is made manager, and it be shown, conclusively, that he ceased to be clerk when he became manager, so that no breach of the bond could have happened after he became manager, that will be an answer to an action, by the bankers, on the bond, against the surety, founded on misconduct as manager; at least, this would, in all probability, be ruled in any case where the guarantee did not expressly engage for his performance of his duties as clerk, or in any other capacity."

"A clerk of a banking co-partnership, under 7 Geo. IV. c. 46, may be convicted of embezzling the moneys of the company, though he is a shareholder, or partner, in such company."

"With respect to the prosecution of clerks, &c., for embezzlement, it may be often material to investigate the facts, in particular cases, with reference to the principles following:—

"Embezzlement necessarily involves, in the idea of it, secrecy and concealment. If, therefore, instead of denying the appropriation, the prisoner, in rendering his account, admits the appropriation, alleging a right in himself, &c., his offence is not embezzlement. So, where a clerk's duty was to enter all such moneys as he should receive, &c., in a book, and remit the amount weekly, &c., and he was found to have made entries regularly, but, with respect to three particular sums, not to have remitted them, this was held to be matter of account, not felony."—*Grant's Laws of Banking.*

One obligation in the above bond is that the party "shall keep all the secrets of the said company." In addition to this obligation, the joint-stock banks usually require all their directors and officers to sign a "declaration of secrecy." The following may be the form for the managers and clerks: —

"We, the undersigned persons, being respectively managers, accountants, cashiers, tellers and clerks of the_____Banking Company, do severally declare, that we will respectively, faithfully, honestly, and impartially discharge the several duties devolving on us as such managers, accountants, cashiers, tellers, and clerks as aforesaid, according to the directions of the directors of the company, and any laws and regulations that may be made by them. And we do hereby severally pledge ourselves, and as inviolably as if we had taken our oaths thereto, that we will observe the strictest secrecy on the subject of all transactions of every description of the company with their customers for the time being, or with any other bodies or persons whatsoever, and on the subject of the state of the accounts of all bodies and individuals from time to time having accounts with the said company. Dated this_____day of_____18_____."

5. Cheques on Bankers.—A cheque must be drawn on a banker—must specify the place where actually drawn, and that place must be within fifteen miles of the bank—must be payable to bearer on demand—must not be post-dated, and must desire payment in money, not in bills or notes.

By the 16 & 17 Vic. c. 59, cheques may be drawn at a greater distance than fifteen miles from the bank, provided they are drawn on a penny stamp; and cheques drawn on a penny stamp, whether within fifteen miles or at a greater distance, may be made payable to order and endorsed like bills of exchange.*

The Act 17 & 18 Vic. c. 83, contains the following enactments with reference to cheques on bankers:—

"VII. And whereas, under and by virtue of certain Acts relating to stamp duties, certain drafts or orders for the payment of any sum of money to the bearer on demand, drawn upon any banker or person acting as a banker residing or transacting the business of a banker within fifteen miles of the place where such drafts or orders are issued,

* All cheques must now be drawn on a penny stamp if drawn within the United Kingdom, and on *ad valorem* stamps if out of it.

are exempted from all stamp duty, and it is expedient to prevent the negotiating or circulating of such drafts or orders unstamped at any place beyond the distance of fifteen miles from the place where the same are made payable: Be it enacted, That no such draft or order as aforesaid shall, unless the same be duly stamped as a draft or order, be remitted or sent to any place beyond the distance of fifteen miles in a direct line from the bank or place at which the same is made payable or be received in payment, or as a security, or be otherwise negotiated or circulated at any place beyond the said distance; and if any person shall remit or send any draft or order not duly stamped as aforesaid to any place beyond the distance aforesaid, or shall receive the same in payment or as a security, or in any manner negotiate or circulate the same at any such last-mentioned place, he shall forfeit the sum of fifty pounds.

"VIII. Provided always, That it shall be lawful for any person who shall receive any such draft or order as aforesaid at any place within the said distance of fifteen miles from the bank or place at which the same is made payable, which draft or order shall have been lawfully issued unstamped, to affix thereto a proper adhesive stamp, and to cancel such stamp by writing thereon his name or the initial letters of his name, and thereupon such draft or order may lawfully be received and negotiated at any place beyond the distance aforesaid, anything herein contained notwithstanding.

"IX. And whereas an Act was passed in the seventeenth year of the reign of King George the Third, chapter thirty, for restraining the negotiation of promissory notes and inland bills of exchange under a limited sum: Be it enacted, That the said Act, and any Act or Acts continuing or perpetuating the same, shall, so far as they respectively extend or may be deemed or construed to extend to any draft on a banker for payment of money held for the use of the drawer, be and the same are hereby repealed."

By the last section the prohibition to draw cheques for a less sum than five pounds is repealed.

"The cheque must not be post-dated; that is, it must not bear date on a day after that on which it was in fact issued. For it is enacted, that if any person shall make or issue any cheque or draft on a banker, payable to bearer on demand, not duly stamped, and not falling in every respect within the above exemption, the drawer shall forfeit 100*l.*; any person knowingly taking it, 20*l.*; the banker knowingly paying it, 100*l.*; and the banker shall not be allowed it in account against the persons by whom or for whom it was drawn, or against any person claiming under them respectively.

"Therefore, unless it be duly stamped, a post-dated cheque is void, and the parties concerned in giving, receiving, and cashing it, are liable

as above under the circumstances there stated. This is the case, although the post-dated cheque was not intended to be used until the day of the date: and it is void altogether, even against a *bonâ fide* holder."

"There is no objection to dating a cheque on a Sunday, though, it is needless to say, it must not be presented on a Sunday, as to do that would not be in compliance with the general rule, that cheques are to be presented in banking hours."

"As between the payee and the drawer, the rule is, that the drawer is not discharged; that is, the payee does not lose his remedy against the drawer, by reason of non-presentment within any prescribed time, short of six years after taking the cheque, unless the insolvency of the banker have taken place in the interval."

"When the person who holds the cheque is not the payee, but has received the cheque from the payee or from some intermediate holder, and upon the cheque being dishonoured seeks to recover from the person from whom he received it, the rule is strict that he must present it within banking hours, on the day following that on which he received it, at the farthest, provided there are the ordinary means of doing so. And the holder of a cheque, whether payee or other holder, does not obtain any more time by sending the cheque to his own bankers and presenting through them; but in all cases, to be safe, he must present within banking hours of the day next after the day of the delivery of the cheque to him, whether he presents it himself or by a servant, or through his bankers."—*Grant's Laws of Banking*

By the statute 1856, 19 & 20 Vic. c. 25, a cheque crossed with the name of a banker can be paid only through a banker, but not necessarily the banker whose name is written across the cheque.

6. Bills of Exchange.—

"A bill of exchange is a written order from one person to another, directing him to pay a sum of money either to the drawer or to a third person at a future time. This is usually a certain number of days, weeks, or months, either after the date of the bill, or after sight; that is, after the person on whom it is drawn shall have *seen* it, and shall have written on the bill his willingness to pay it. The party expresses this willingness by writing on the bill the word '*accepted*,' and his name. If the bill be drawn after sight, he also writes the date of the acceptance.

"If the party in whose favour the bill is drawn wishes to transfer it, he writes his name on the back. This is called an *indorsement*; and may be either special or general. A special indorsement is made to a particular party; as, 'Pay to Messrs. John Doe & Co. or order.' A

general, or blank indorsement, is when the person merely writes his name. It is held by the lawyers * that a special indorsement cannot *follow* a general indorsement, and that in such a case the holder may sustain an action for the amount, though the bill be not indorsed by the party to whom it is thus specially assigned. In practice, however, this is very common; and bankers always refuse to pay bills not properly indorsed, even though previous indorsements may be general. But, in regard to post bills, the Bank of England pays no regard to any special indorsement that may follow a general indorsement."

"Bills are divided into Inland and Foreign. Inland bills are those in which both the drawer and the acceptor reside in England. Bills drawn from Scotland, or Ireland, are considered as foreign bills. If a foreign bill be refused acceptance or payment, it should be immediately protested and returned. An inland bill is only noted, and then only when refused payment. A foreign bill may be accepted verbally, or by letter; but no acceptance of an inland bill is valid, unless written upon the bill itself." †

The above description of bills of exchange, which we have taken from our "Practical Treatise on Banking," was strictly correct up to December 31, 1856; but the statute 1856, 19 & 20 Vic. c. 97, made the following alterations in the law:—

"VI. No acceptance of any bill of exchange, whether inland or foreign, made after the thirty-first day of December, one thousand eight hundred and fifty-six, shall be sufficient to bind or charge any person, unless the same be in writing on such bill, or, if there be more than one part of such bill, on one of the said parts, and signed by the acceptor, or some person duly authorized by him.

"VII. Every bill of exchange or promissory note drawn or made in any part of the United Kingdom of Great Britain and Ireland, the islands of Man, Guernsey, Jersey, Alderney, and Sark, and the islands adjacent to any of them, being part of the dominions of her Majesty, and made payable in or drawn upon any person resident in any part of the said United Kingdom or islands, shall be deemed to be an inland bill; but nothing herein contained shall alter or affect the stamp duty, if any, which, but for this enactment, would be payable in respect of any such bill or note."

* If a bill be once indorsed in blank, though afterwards indorsed in full, it will still as against the drawer, the payee, the acceptor, the blank indorser, and all indorsers before him, be payable to bearer, though as against the special indorser himself title must be made through his indorsee.—*Serjeant Byles on Bills of Exchange*, p. 115.

† See 1 & 2 Geo. IV. cap. 78.

Bills of Exchange have given occasion to an abundance of argumentation—we quote only the following examples:—

"It has been stated that the effect of acceptance at a named bank, is to give the holder the option of presenting, either at the bank, or to the acceptor himself; it is a further effect of such acceptance (or, perhaps, is only another mode of stating the same thing), that if the holder presents at the bank, and is refused payment, he may sue the other parties to the bill, without any other presentment. But the acceptor, having funds to meet the bill in the banker's hands, is, nevertheless, not apparently exonerated, if they fail, after the maturity of the bill, but before it has been presented, although the holder is in default."

"A bill, purporting to be accepted by a customer, payable at his bankers', was presented to them and paid. The bankers, on the following day, discovered the acceptance to be a forgery, and demanded back the money from the holder, to whom they had paid it; but it was laid down by the Court, that the holder was entitled to know, on the day on which the bill became due, whether it was honoured or dishonoured, and that, no notice of the forgery having been given him, on the day the bill became due, the bank could not recover."

"*Branch Banks.*—A branch bank is considered, for some purposes, as a distinct establishment, from every other branch of the concern. Thus, where a bill of exchange was endorsed to a Branch Bank of the 'National Provincial Bank of England,' established at A., who sent it to another branch established at B., who endorsed it to the head establishment, in London, it was held, in an action upon the bill, by the endorser against the drawer, that each of the branch banks were to be considered as independent endorsers, and each entitled to the usual notice of dishonour."—*Grant's Laws of Banking.*

7. Writings connected with Freehold or Leasehold Property.

We have said that dead loans are usually advanced upon inconvertible security. Sometimes that security consists of a deposit of deeds relating to leasehold or freehold property. In London, however, this kind of security is not considered desirable, and the following rules are usually observed:—

No advances are made upon the security of deeds alone; they are taken only as collateral security; and then only to cover business transactions, and in cases where the parties are supposed to be safe independently of deeds.

The value of the property should be much higher than the sum it is intended to guarantee. When this is the case, and

the parties fail, their creditors may take the deeds, and pay the debt due to the bank. The main use of taking deeds is to have something to fall back upon in this way. A customer should never receive more accommodation from having deposited his deeds than that to which he is legitimately entitled. No banker takes deeds if there is the slightest probability of his being compelled to realize the property, as the legal difficulties are very great.

In all cases in which deeds are taken, they are submitted to the inspection of the banker's solicitor, who makes a written report upon the value of the property, as far as it can be discovered by the deeds, and upon its legal validity as a security to the bank.

A banker should always be on his guard against valuations made even by professional men. An estate will be of different values, as valued at building land or as arable land. The lease of a house connected with a well-frequented shop is more valuable than as a private dwelling. A plant, as it is called, of an engineer or manufacturer, is more valuable when in full work than it would be if applied to any other purpose. The same observation may be applied to mills, manufactories, and other buildings devoted to trade purposes.

The deeds are accompanied by a letter, and this is deemed an equitable mortgage. The following may be the form of the letter:—

"*To the Directors of the*_____ *Banking Company.*

"Gentlemen,—I have sent you the title deeds, and other writings, relating to my several freehold and copyhold estates and properties, in or near_____in the county of_____, and which documents I hereby declare are deposited with you, as a security for all sums of money now or hereafter to become due from me, either solely, or jointly with others, to the said banking company, either upon banking account, or in any other manner howsoever (including interest, commission, and all other usual banking charges); and I hereby engage, upon request, to execute to you or to the trustees of the said company, a mortgage of the said tenements and premises, for the better securing the said sum or sums of money, intended to be hereby secured, such mortgage to contain a power of sale, and all other usual covenants, and to be at my expense. I am, &c."

The following cases may occasion some reasoning upon documents of this description:—

"As between the bank and the general creditors of the bankrupt, who has deposited title deeds with them before bankruptcy, the bank has the priority and the best title; although the deeds deposited were old deeds, not including the conveyance from the depositor's vendor, but the intention of the deposit undoubtedly being to create a lien; that is, the bank are equitable mortgagees against the general creditors."

"An equitable mortgagee, by deposit, is not, in general, as such, entitled to demand a legal mortgage to be made to him, unless there is a contract that one shall be made."

"A deposit of title deeds *primâ facie* creates an equitable mortgage upon the whole property comprised in them; and further, where the memorandum of deposit stated it to have been made, with the object, that the deeds should remain in possession of the depositee, till such time as the depositor's account, due to the depositee, did not exceed the sum of 100*l.*, at which time they were to be restored to the depositor, free of expense, and the depositor died indebted to the depositee in 274*l.*, it was decided that the lien extended to the whole 274*l.*"—*Grant's Laws of Banking.*

8. Letters of Guarantee.—These are letters by which one party becomes responsible to a bank for advances made to another party. The following forms may be adopted, according to the circumstances of the case:—

"*To the Directors of the*_____*Banking Company.*

"Gentlemen,—In consideration of your paying the cheques of Mr. _____ or otherwise advancing him sums of money, I hereby guarantee the repayment thereof upon demand, to the extent of one thousand pounds. I am, &c."

"Gentlemen,—Mr. *John Slender* may have occasion to offer you sundry bills for discount. In consideration of your discounting such of them as you approve of, which I request you to do, I hereby guarantee the punctual payment of such bills when due. I am, &c."

The following is the form of a cash credit, or other bond:—

"Know all men by these presents, that we, *A. B.* of_____, *C. D.* of_____, and *E. F.* of_____, are jointly and severally held and firmly bound to *W. X.* of_____and *Y. Z.* of_____two of the trustees of the society or co-partnership called the_____, in the penal sum of _____pounds of lawful money of Great

Britain and Ireland, to be paid to the said *F. G.* and *H. I.*, or their certain attorneys, executors, administrators, and assigns, for which payment, to be well and truly made, we bind ourselves, and each and every of us, and our, and each and every of our heirs, executors, and administrators, jointly, severally, and firmly by these presents. Sealed with our seals. Dated this_____of_____.

"Whereas the above-bound *A. B.* has opened an account with the above-mentioned society or co-partnership, called the_____at their establishment, at _____, and is desirous of being accommodated by the said society or co-partnership, from time to time, in some one or other of the various modes in which bankers are in the habit of affording accommodation, and to induce the said society or co-partnership to take the said account, and to accommodate him from time to time, in some one or other of the modes aforesaid, the said *A. B.* and the said *C. D.* and *E. F.* as his sureties, have agreed to enter into the above-written bond or obligation with such condition as hereinafter is expressed.

"Now the condition of the above-written bond or obligation is such, that if the said *A. B.*, *C. D.*, and *E. F.*, or some or one of them, or their, or some or one of their heirs, executors, or administrators, do and shall, on the demand in writing, under the hand of any one of the public officers of the said society or co-partnership, called_____, well and truly pay or cause to be paid to the said society or co-partnership, all and every such sum and sums of money as upon the balance of any account current, which now is, or at any time or times hereafter shall be opened between the said *A. B.* and the said society or co-partnership, shall or may, from time to time, be due and owing from or by the said *A. B.*, his executors, or administrators, together with all discount, interest, postage of letters, and commission, according to the usage and course of business, but nevertheless, to the extent only of £_____ principal money, exclusive of interest and costs, in case such balance shall exceed the sum; and so that the above-written bond or obligation shall, and may be, a continuing security to the said society or co-partnership to the amount of £_____principal money, besides such interest and costs as aforesaid, notwithstanding any settlement of account, or other matter or thing whatsoever, then the above-written bond or obligation shall be void; otherwise, the same shall remain in full force and virtue.

"Signed, sealed, and delivered
in presence of_____"

Letters of guarantee have given rise to discussion upon the points mentioned in the following extracts:—

"*Change of Firm.*—A guarantee, given by a person to secure a banking co-partnership, consisting of several members, all and every sums

or sum of money which might become due to *them*, from a certain customer, for money advanced to him, &c., upon any bills, &c., made payable at the banking house of the co-partnership, does not bind the obligor, after the death of one of the partners, nor cover future advances made, after such death, and the taking in of another partner; and the customer who, at the time of the death, was indebted to the house, having afterwards paid off the balance incurred previously to the death, the obligor was wholly discharged.

"There is no doubt, however, that a guarantee may be drawn, in such terms, as will serve as a continuing indemnity to the house, whatever be the change of partners; but then that must plainly appear from the language used; the Courts, both of equity and common law, appear to lean against increasing the liability of a guarantor to a banking firm *in this respect.*"

"*Bankers, how to take guarantee.*—It *was*, in all cases, desirable that bankers, in taking a guarantee of this description, should insist upon a bond being executed by the guarantor, as by that means all questions were got rid of, respecting the sufficiency of the statement of the consideration, in the writing purporting to be a guarantee, to support the document as such. The numerous cases which have been contested in the Courts, on this ground, in cases of guarantees by simple contract, and the oftentimes conflicting decisions which have been pronounced, on instruments, very nearly approaching to identity of signification, in their terms, showed this very satisfactorily, and rendered it most unsafe for bankers to rely on merely written, not sealed and delivered, guarantees.

"With respect, however, to *all guarantees given since* 29th July, 1856, the stat. 19 and 20 Vict. c. 97, s. 3, dispensing with the necessity for the statement of consideration in such cases, providing the undertaking be 'in writing, and signed by the party to be charged therewith, or some other person by him thereunto lawfully authorized,' makes such precaution useless."—*Grant's Laws of Banking.**

9. Reasoning from Statistical Tables.—For an example of reasoning from statistical returns, we refer to our article upon the laws of the currency at page 167 of this work. As another illustration of statistical reasoning with reference to banking, we transcribe an extract from a paper we read before the British Association at Liverpool, in September, 1854, and which was afterwards published in the Journal of the Statistical Society of London.

* We beg to recommend Grant's "Laws of Bankers and Banking" to all practical bankers.

"But the most important circumstance in which the banks of Scotland and Ireland differ from those of England, is in their power to issue notes under 5*l.* That portion of our currency in England which is under 5*l.* consists of gold and silver coin. And it may, under present circumstances, be worth while to inquire: Suppose we should have a protracted war,* and be compelled to export our gold, either to subsidise foreign powers, or to maintain our fleets and armies abroad, what additional supply of gold could we obtain by means of issuing 1*l.* notes? I do not think we can get any certain reply to this question; but there are some inquiries that may assist our reasonings on the subject. First, we may inquire, When the Bank of England issued small notes, what proportion did the notes under 5*l.* bear to the amount of the whole circulation? That establishment issued such notes from the year 1797 to the year 1821. We find that the highest proportion was in the years 1815 and 1816. On the last day of February in those years the circulation stood thus—

	Notes under 5l.	*Notes of 5l. and upward.*	*Total Circulation.*
1815	9,035,250*l.*	18,226,400*l.*	27,261,650*l.*
1816	9,001,400*l.*	18,012,220*l.*	27,013,620*l.*

Here we find that the notes under 5*l.* were about half the amount of those of 5*l.* and upwards. This was in 1815, nearly forty years ago, and when the notes were issued only in London. Now, it will thus be seen that in 1815 and 1816, the notes under 5*l.* were about half the amount of those of 5*l.* and upwards. Supposing, therefore, in round numbers, that the Bank of England circulation is now 20,000,000*l.*, then in the same proportion she might maintain a circulation of 10,000,000*l.* of small notes. But we must remember that during the last forty years the population, the trade, and the wealth of the nation has vastly increased. And if pecuniary transactions were conducted in the same way, the notes in circulation must have increased in proportion. But, in consequence of the more general use of bills of exchange, the extension of banking accounts, the more frequent exchanges between country bankers, and the operations of the clearing-house in London, a smaller amount of bank notes is now necessary. All large transactions are now settled, not by notes, but by bills and cheques and transfers. But these banking facilities, which diminish the demand for large notes, do not in the same proportion diminish the use of small notes. On the contrary, from the great increase in the labouring population, and the necessarily increased extent of retail trade, the demand for small notes to pay wages and to settle small transactions must, during the last forty years, have greatly increased. Seeing, then, that the demand for large notes has diminished, and the demand for small currency has increased, it seems reasonable to

* This was written in September, 1854, during the war with Russia.

suppose that, were the Bank of England now to issue small notes, the amount in circulation would bear a higher proportion to the large notes than was the case forty years ago.

"I have already stated that we have no returns of the amount of the country circulation previous to the year 1833. But we have the number of notes stamped of different denominations, and we find that in the years 1820 to 1825 the amount of notes stamped under 5*l.* varied from 37 to 50 per cent., making an average of 44 per cent. of the whole circulation. This makes the small notes nearly equal in amount to the large ones. But here again it is probable that the small notes remained out longer than the large ones. A greater proportion of the large notes were probably in the banker's till, and a larger proportion of the small notes in the hands of the public. It seems probable, therefore, that the amount of small notes in active circulation was usually higher than the amount of large notes. And if the Bank of England, whose issues were made only in London, and whose circulation was chiefly in London and Lancashire, maintained one-third of her circulation in small notes, it seems likely that the country banks, whose notes were issued in almost every town and village in the country, would maintain a much higher proportion than even one-half.

If we look to the present state of the circulation in Ireland and Scotland, we shall find that the small notes form the larger proportion, and the amount furnishes no confirmation of the doctrine that small notes diminish in wealthy countries. Scotland is a wealthier country than Ireland, yet has a larger proportion of small notes. And the north of Ireland is wealthier than the south, yet the banks of Belfast have a larger proportion of small notes than the banks of the south.

"From the former circulation of the Bank of England, the stamps issued to the country bankers, and the present circulation of Scotland and Ireland, we have then materials for forming an opinion as to the amount of small notes that might be maintained in circulation in England; and though we cannot fix the amount with that precision which the science of statistics requires, yet after putting the facts and reasonings together, we seem warranted in drawing the conclusion that the amount would not be less than thirty millions; and, consequently, we have the power, when necessary, of releasing from their present duties thirty millions of sovereigns, and employing them for national purposes elsewhere."

10. Agreements, Letters, and other occasional Writings.

Under this head we may place occasional agreements made between banker and customer—letters addressed by banker to customer complaining of the account—or to other parties

giving notice of unpaid bills—and letters addressed by customer to banker inclosing remittances or undertaking to perform certain engagements or accompanying securities placed in the banker's hands. To these may be added resolutions passed by boards of directors, or by public meetings of shareholders, and advertisements to be inserted in the newspapers.

The writing of these and similar documents usually falls to the manager; and it behoves him to be familiar with the mode of drawing up instruments of this kind in a way that will not admit of cavil or misconception. If he has not the talent for doing so, he would do well to keep by him an approved form ready for use when required. The best English grammar we have for teaching how to acquire a clear and correct business style is still Lindley Murray's. By precision and brevity in our modes of expression, much disputation and litigation may be avoided.

In banking letter-writing, it is always best to adopt a courteous style of address, even in letters of complaint or of threatening. Thus, to a person who has attempted to overdraw his account, it is best to presume, either that he is unacquainted with the rules of the bank, which do not admit of overdrawn accounts, or that he has not examined his account, or that the bank may have made a mistake, and you wish the customer to rectify it. If you threaten a party that unless he pays his bill you will take legal proceedings against him, it is best to say that unless the bill be immediately discharged, you will be *under the necessity* of placing it in the hands of the bank's solicitor, or that the *rules of the bank* will require you to do so—or you may express a hope that the party will not place you under the unpleasant necessity of doing so. The first letter should always be mild; if that is disregarded, the next may be stronger, and the third stronger still.

11. In closing this section upon written documents in reference to banking, it may not be inappropriate to refer to the Lectures that have been delivered on banking in the Collegiate and Literary Institutions of London. In the

winter of 1855, I made arrangements with the authorities of King's College, for the admission of all the Officers of the London and Westminster Bank to the Course of Lectures on Banking and Commerce, then about to be delivered by Professor Levi. The following reference to the closing ceremony is taken from the 'Daily News' of December 24, 1855:—

"A very interesting and novel ceremonial took place at King's College on Friday evening—Dr. Jelf, the Principal, in the chair—being the formal closing for the session of Professor Leone Levi's lectures on what may properly be called the literature of commerce. It is a curious fact that, at the first establishment of the college, a professorship of commerce was provided for, and a professor appointed. Lectures were given; but as no one attended, they were at last abandoned, and the department remained in abeyance until the fame of Mr. Levi, as a commercial jurist, attracted public attention to the subject, when his services having been secured, the class was re-opened, and with such success that the learned lecturer has had an attendance of considerably upwards of one hundred students all through his course. Much of this success is to be attributed to the warm support given to the movement by Mr. Gilbart, general manager of the London and Westminster Bank, who not only provided prizes for the successful students, but paid for the admission of every gentleman connected with that great establishment who chose to avail himself of the course.

"In presenting the prizes, Mr. Levi took occasion to thank the heads of King's College for the service rendered to commerce by the establishment of this branch of education, and to point out that the object was not to bewilder the students with the technicalities of commercial law, but to ground them in its general principles, which, being founded on common sense and justice, every man of common sense could understand. With respect to the cases in which certificates only were given, he trusted that these certificates would have considerable value, and serve as letters of introduction to employment in the great establishments of the metropolis.

"The prizes and certificates having been all distributed, Mr. Gilbart rose amid loud cheers to propose a vote of thanks to their Rev. Principal, Dr. Jelf, for his kind attendance on that occasion. It was not every event of his life to which a man could look back with unmingled satisfaction; but he (Mr. Gilbart) could say that his satisfaction with everything connected with the course of lectures just terminated was unmingled and entire. It was a pleasure to him to see so numerous an attendance, especially from the establishment with which he was connected; and he was quite sure that the lectures which had been

delivered would have a powerful effect on all who had had the advantage of hearing them. He trusted that our collegiate institutions generally would follow the good example set by King's College, as literature and commerce were in their best aspects intimately connected with each other. It was commerce that gave to literature its practical utility, and literature to commerce its intellectual enjoyments."

The following is the Syllabus of the above Lectures:—

Lecture I. On the Principles and Practice of Commerce and Commercial Law.

Lecture II. On Banking, Currency, and Exchange.

Lecture III. On Banking Law—Interest and Discount—System of Credit.

Lecture IV. On Money—Prices—and Value—Decimalization of Money—Weights and Measures.

Lecture V. On the Law of Partnership and Companies.

Lecture VI. On the Law of Partnership with Limited Liability.

Lecture VII. On the Law of Bills of Lading—Policies of Insurance—Dock Warrants—Bottomry Bonds, and other Commercial Securities.

Lecture VIII. On the Law of Bills of Exchange and Promissory Notes.

Lecture IX. On Banking Cheques, Bank Notes, and Letters of Credit.

Lecture X. On the Law of Agency—Bill and General Brokers—Commission Agents—Mandate—Law of Bailment—Loans—Deposits—Guarantee, &c.

Lecture XI. On the Law of Contracts and Contract of Sale.

Lecture XII. On the Bankrupt and Insolvent Laws.

Lecture XIII. On Notarial Practice and Legal Proceedings in Commercial Disputes—Law of Arbitration, &c.

At the commencement of the winter of 1856, Mr. Gilbart addressed a letter to the committees of some of the Literary and Scientific Institutions of London, informing them that, should they engage any gentleman to deliver a course of not fewer than four lectures on some portion of the history, principles, or practice of banking, he would be happy to present to their society the sum of ten guineas to be added to the fee paid to the lecturer, provided they placed at his disposal twenty free tickets for the course, which he intended to distribute among the clerks of the London and Westminster Bank or other persons engaged in banking.

In consequence of this letter, arrangements were made with Professor Levi for the delivery of Lectures, before six Institutions. The following

is the Syllabus of four of the Lectures delivered, with some slight variation, at all these institutions:—

Lecture I. A Glance at the History of Commerce and Banking. —Progress of Commerce from its first Stages to the doubling of the Cape of Good Hope and the Discovery of America—Causes of the Rise and Fall of the Commerce of Spain, Portugal, and Holland—Increase of Commerce in England—The Cotton Manufacture—Invention of the Steam Engine, and application of Steam Power to Manufacture, Navigation, and Railways—Hindrances to Commerce—Restrictive Laws—Introduction of Free Trade—Advantages afforded to Commerce by Banking—Commerce as a builder of Capital, and in its relation to Credit and Commercial Morals—Connexion of Commerce with Liberty.

Lecture II. Banking Scientifically and Practically Considered. —Principles of Banking—Functions of Bankers—Institution of the "*Crédit Mobilier*" in France—Relation of Bankers to their Customers—Responsibility of Bankers as Trustees—Comparative extent of Banking in this and former Periods—Statistics of Banking Establishments, and of Banking Accounts—Savings' Banks.

Lecture III. Lessons from the History of Banking and Commercial Crises.—Suspension of Cash Payments by the Bank of England in 1797—Character of the Commercial Crisis, 1809-1810—Report of the Bullion Committee—Resumption of Cash Payments in 1819—Commercial Crisis in 1825-6—Formation of Joint-Stock Banks—Extent of Speculation and Failure of Banks—Crisis of 1836-7—The Bank Charter Act, 1844—Railway Speculation—The Famine Crisis of 1846-7—Suspension of the Bank Charter Act—Lessons from the preceding Review of Banking and Commercial Incidents.

Lecture IV. Foreign Exchange and Course of Exchange.—Modes of settling international Transactions—Balance of Trade and of Payment—Nature of the foreign Exchange and Course of Exchange—What is the par of Exchange—Gold and Silver Standards—Relation of the par to Imports and Exports—to Revolutions and to the Currencies—Instances of the French Revolution of 1848, and of the French Assignats under the French Convention—Mode of calculating the arbitration of Exchange.

SECTION V.

SERIES OF REASONINGS IN REFERENCE TO BANKING.

A SERIES of reasonings consists of a number of reasons or arguments so combined as to result in the demonstration of one conclusion. These series are of different kinds, according to the form or classification of the arguments.

1.—It is a series of reasonings when the arguments succeed one another in a regular chain, and then a conclusion is drawn, which connects the first proposition with the last. This, in scholastic logic, is called a *Sorites.* The following is an example:—

No one can write a good review of a book on banking without reading the book carefully through.

To read a book on banking carefully through would take up a great deal of time.

If a reviewer spent a great deal of time in reviewing a book, he would expect a high price for his review.

No editor of a public review can afford to give a high price for the review of a book on banking.

Therefore, no good review of a book on banking is likely to appear in any of our public reviews.

The following is another example showing the train of reasoning followed by those who adopt the principle of the Act of 1844, for the regulation of the currency:—

A favourable state of the Exchange will cause an importation of gold.

This importation of gold will cause a corresponding issue of bank notes.

This issue of bank notes will cause a general advance in the prices of commodities.

This general advance of prices will check exportation and encourage importation.

This decrease of exports and increase of imports will turn the exchanges against us.

The exchange being turned against us, will cause a demand for the exportation of gold.

This demand for the exportation of gold will cause the notes to be taken to the Bank of England, and payment demanded in gold.

The notes in circulation will thus be diminished, and the currency will again be placed in a sound state.

The sorites, it will be seen, embraces a number of arguments connected together. It is, therefore, called a chain of reasoning. It resembles a chain in this, that if one link be broken, the whole argument is destroyed. In the example we have just given, the third link is denied by Mr. Tooke, who contends that an increase in the amount of the circulation has no effect on the prices of commodities. Were this doctrine demonstrated, the chain would be broken, and the whole reasoning annihilated.—*Logic for the Million.*

2. It is a series of reasonings when a proposition which is proved by one argument is then advanced as an argument to prove a second proposition—or, to use the language of scholastic logicians, "when two or more syllogisms are so connected together that the conclusion of the former is the major or the minor of the following." For example:—

All persons entrusted with the property of other people should be punished if guilty of a breach of trust.

A banker is entrusted with the property of other people.

Therefore, a banker should be punished if guilty of a breach of trust.

A banker should be punished if guilty of a breach of trust.

This banker has been guilty of a breach of trust.

Therefore, this banker should be punished.

3. It is a series of reasonings when the two propositions of a syllogism are separably proved before the conclusion is drawn.

For example, here are two propositions:—

An Act of Parliament that has been wisely suspended cannot be adapted to all times.

The Act of 1844 has been wisely suspended.

From these two propositions, before we draw the conclusion, we must prove that both of them are true.

First. An Act of Parliament that has been wisely suspended cannot be adapted to all times—*because*

When an Act is suspended wisely, it must be either to

remove an evil which the Act has produced, or to prevent an evil which the Act may produce. But an Act adapted for all times cannot have produced an evil at the present time, nor produce it at any future time. It can never, therefore, be wisely suspended.

Secondly. The Act of 1844 has been wisely suspended. It was wisely suspended in the year 1847. This is proved by—1. The great distress and number of failures from the difficulty of getting accommodation.—2. The failure of banks in the North of England, and the apprehension of runs upon the London bankers.—3. The taking up of bank notes by bankers and others, from the fear of further failures.—4. The small amount of notes in the banking department of the Bank of England; an amount not equal to pay even the balances of the London bankers alone.—5. It is proved to have been wisely suspended by the effects that immediately followed: the panic ceased—hoards of notes were brought out—and accommodation was readily obtained. The Act was also suspended wisely in the year 1857. It was suspended November 12th, 1857; from the published returns of November 11th, 1857, it is evident that if the Act had not been suspended, the Bank of England must have been suspended. Hence it appears that the Act of 1844 has been wisely suspended.

Conclusion—Therefore the Act of 1844 is not adapted to all times.

4. It is also a series of reasonings when a number of reasons, each independent of the others, are advanced to prove the same proposition.

As an illustration, we may copy our summary of the reasons against the establishment of one bank of issue published in the year 1840:—

"A Committee of the House of Commons has just been appointed 'to inquire into the effects produced on the circulation of the country by the various banking establishments issuing notes payable on demand.' We conjecture that the attention of the Committee will be mainly directed to the inquiry, whether there ought to be only one bank of issue throughout the country. In this case, it will be necessary that the Committee should first ascertain the soundness of the principle,

that the currency ought to be regulated by the foreign exchanges. Should the Committee approve of this theory, they may then inquire, whether the circulation can be administered on this principle better by one bank than by numerous banks. If the Committee decide in favour of one bank, then they must consider whether the power of issuing notes shall be taken away by legislative enactment from the existing issuers and given to one, and if so, whether that one bank shall be the Bank of England. Should such be the course of the proceedings, we conjecture that the Committee will get no farther than the first stage of the inquiry; for if the main principle be not fully established, the investigation must be turned into a different direction. If, however, the inquiry should proceed, we think the joint-stock banks of issue will have no difficulty in showing—that their issues of notes are based upon a large paid-up capital, larger in proportion than that of the Bank of England—that numerous issuers are a check upon each other by the system of exchanges which cannot apply to a single issuer—that were there a single issuer, there would be no greater security against undue fluctuations in the amount of the currency than in the case of numerous issuers—that a currency conducted on the principle of being regulated by the foreign exchanges is wholly unsuitable to our agricultural, manufacturing, and mining operations — that a currency administered by one bank of issue could not be distributed as at present in a manner adapted to the local circumstances and districts of the country—that the assistance now given to trade and industry by country bankers would be much curtailed or attended with heavier charges to the parties, operating as a tax upon the middle classes of the community—and that in some districts banks, or branches of banks, would be discontinued from inability to pay their expenses in case they had no longer the profit upon the issue of notes, and those districts would thus be deprived of all banking accommodation. It may also be maintained that a sole bank of issue would soon become more powerful than the Government, and might be abused to the worst purposes of either tyranny or faction."

Another illustration—The salary of this manager ought to be advanced. Why?—

He has been the manager of the bank from its commencement.—He then resigned a post in a very respectable bank, in which he might by this time have attained to a distinguished post.—At the commencement of this bank, its prospects were gloomy; and had it not been successful, he would have lost his post, and could not have returned to the post he had relinquished.—He has now held his office for a long time, and has therefore a claim from length of service.—The bank has

been eminently successful during the time he has held the office of manager.—His salary hitherto has been less than that given to their managers by other banks of equal or even inferior standing.—He has been very steady and attentive in the discharge of his official duties.—He has on various special occasions shown great judgment and sagacity in conducting the affairs of the bank.—He has, by his talents and influence, promoted the interest of the bank in various ways not necessarily connected with his office as manager.—He is much respected by the customers, the shareholders, and the public.—He was promised, when he accepted the office of manager, that his salary should increase as the bank might prosper.—The bank is now in a state of high prosperity, and, therefore, the salary of the manager ought to be proportionably advanced.

It will be observed that, in the above series of reasons, the refutation of any one argument would in no degree impair the force of the others.

We will not attempt to describe all the various forms in which a series of reasons may be arranged.* In analyzing a piece of reasoning, we have carefully to observe the propositions to be proved, and the arguments advanced to prove them. We must, however, have a care of supposing that all argumentation assumes the form of controversy; sometimes it appears to be only description, narration, or exposition. The following illustrations, taken from our own writings, will furnish the reader with the means of exercising his skill in the analysis of series of reasonings:—

1.—The Causes of Panics.

"Here, then, gentle reader, you have the cause of the pressure on the money market during the year 1839. It was occasioned by the bank directors putting out too many notes, thus making money too abundant and too cheap, and causing large investments in foreign securities. But you will ask, 'How came the directors to do this? Did they not know what would be the consequences of their conduct? What have they to say in their defence?' Why, they will say that in

* In this class we might place the *dilemma;* but this form of reasoning has been already explained in this work. See pp. 96, 338.

1837 and 1838 the foreign exchanges were favourable, and brought them a large amount of gold, and having so much gold in hand, they issued more notes; but that in 1839 the foreign exchanges were unfavourable, and took away their gold, and hence they withdrew their notes. And they will tell you that this is the rule they go by—always to put out notes when the exchanges are favourable, and to pull them in when the exchanges are unfavourable; and this they call regulating the currency by the foreign exchanges.

"We may observe that this doctrine of regulating the currency by the foreign exchanges is altogether of modern date. It was first announced as a rule of the bank by Mr. HORSLEY PALMER, in his evidence before the parliamentary committee in the year 1832. It was new and simple, and obtained ready currency with the political economists. But Mr. PALMER's own faith in the doctrine appeared to waver considerably in the year 1837. He acknowledged that it failed in 1836; that it was not adapted for extraordinary seasons; and that if parliament would vote it to be erroneous, the bank directors would readily abandon it. 'If,' he states, 'there exist any well-founded reasons for supposing that the principle explained in the evidence of 1832, and acted upon by the bank, is not sound—or that the proportion of one-third of bullion, with reference to the liabilities of the Bank, at the period of a full currency be not sufficient, it merely remains for parliament to express an opinion upon either of these points, and there can be no question but that the bank would immediately regulate its course accordingly.' Colonel TORRENS affirms this doctrine very decidedly in his letter to Lord MELBOURNE, published in 1837. He states, 'It is universally admitted by persons acquainted with monetary science, that paper money should be so regulated as to keep the medium of exchange of which it may form a part, in the same state, with regard to amount and to value, in which the medium of exchange would exist were the circulating portion of it purely metallic. Now it is self-evident that if the circulating currency were purely metallic, an adverse exchange, causing an exportation of the metals to any given amount, would occasion *a contraction of the circulating currency to the same amount,* and that a favourable exchange, causing an importation of the metals to any given amount, would cause *an expansion of the circulating currency to the same amount.*' Mr. LOYD also assumes the doctrine to be true, and hence he proves most unmercifully that the bank directors have not adhered to their own principles. Speaking of the bank, he says—'As a manager of the currency, it is undoubtedly a sound rule by which to guide itself, that against the amount of notes out, it shall hold at its disposal securities and specie; that the amount of securities shall be invariable, and that consequently *all fluctuations in the amount of notes out shall be met by a corresponding fluctuation in the amount of specie in deposit.* Thus the public, and not the Bank, will be

made the regulators of the amount of the circulation, and that amount will by this principle be made to fluctuate precisely as it would have fluctuated had the currency been purely metallic.' 'The rule ought to be that *the variations in the amount of the circulation shall correspond to the variations in the amount of bullion,* and the adherence of the bank to this rule ought to be obvious upon the face of the published accounts.' Mr. NORMAN, the bank director, contends that the foreign exchanges are the only safe guide for regulating the currency; and though he blames the joint-stock banks for not observing this rule, yet he does not admit that it is binding upon the Bank of England to the extent to which it is insisted upon by Colonel TORRENS and Mr. LOYD. He appears to coincide with Mr. HORSLEY PALMER, whom, however, he defends rather in the language of apology than support. We must not, therefore, suppose that all the writers who contend that the currency ought to be governed by the foreign exchanges, entertain precisely the same opinions as to the rules by which this principle ought to be applied, or the means by which it should be brought into operation. They all, however, agree in this—that when the foreign exchanges are favourable, the circulation of notes ought, on that account, to be increased; and when the exchanges are unfavourable, the circulation ought, on that account, to be diminished. We question the soundness of both these propositions.

"But we are told that were the circulation wholly metallic, it would vary in this way so as to cause a perpetual fluctuation in prices, and that hence a paper circulation ought to be made to vary so as to correspond. We dispute both the reasoning and the fact. Admitting the fact, that a metallic currency would produce this eternal fluctuation in prices, we contend that this would be no reason for making a paper currency to fluctuate in the same way. A paper currency is employed to obviate some of the inconveniences of a metallic currency, and why not obviate this inconvenience? Will it be denied, that a perpetual fluctuation in the prices of all commodities is an inconvenience? And if a paper currency can be so managed as to obviate this inconvenience, ought it not to be done? But we dispute also the fact. We do not admit that a currency, purely metallic, would fluctuate in the mode described. If a large quantity of gold and silver bullion were imported, it would not form part of the currency until it were converted into coin; while in the state of bullion it would have no more effect upon prices than though it had existed in the form of gold watches and silver spoons. To convert it into coin would occupy time—and afterwards it must be diffused through the country before it would cause a general advance of prices; and before this was effected an unfavourable turn of the exchanges might cause it to be again exported. But under our present system, the gold and silver imported are taken to the Bank of England and instantly turned into bank notes. This has the same effect

as if the bullion could be *immediately* coined into sovereigns and shillings, and possessed also the rapidity of diffusion that is peculiar to paper money. It is clear, therefore, that to regulate our paper money by the foreign exchanges, is not to make the currency fluctuate in the same way as it would fluctuate in case it was wholly metallic."

2.—The Act of 1844.

"The theory on which this Act was founded had, for several years previously, been brought before the public in pamphlets written by men of distinguished talent. Upon some of these pamphlets we wrote a critique, which appeared in the 'Westminster Review' of 1841. That article was afterwards published separately, under the title of 'Currency and Banking: a Review of some of the Principles and Plans that have recently engaged public attention, with reference to the administration of the Currency.' In this review we made the following observations on the plan then proposed, and subsequently carried out in the Act of 1844:—

"'*The plan of making the amount of the circulation fluctuate in exact correspondence with the amount of gold in the Bank of England.*

"'This plan is open to the following objections:—

"'1. Upon this plan there must be a perpetual increase and diminution in the stock of gold; consequently, a perpetual increase and diminution in the amount of the currency. The increase in the amount of the currency would raise prices and stimulate speculation. The diminution in the amount of the currency would reduce prices and produce distress. And thus there must be a constant alteration from high prices to low prices, and again from low prices to high prices—from speculation to distress, and from distress to speculation.

"'2. But depression of prices, and their attendant miseries, may not be experienced only when the foreign exchanges are unfavourable. Excessive caution, an apprehension of war, or political feeling, may cause a domestic demand for gold, and this would cause for a while a contraction of the currency as severe as that which would arise from an unfavourable exchange; and, as the bank directors would have no discretionary power, but would be required "to adhere to principle," by giving gold for notes, or notes for gold, they could do nothing to assuage these calamities. According to Mr. Loyd, a drain, from whatever cause it may arise, must be met by a contraction of the currency. Mr. Palmer, in laying down his rule, put in a saving clause—"except under special circumstances," but Mr. Loyd* makes no exceptions.

* I wish I could have made this quotation without introducing the names. It would greatly assist our inquiries after truth, and lead to the formation of an independent judgment, if we could engage in discussions of this kind without any reference to those talented men who may have distinguished themselves as either the advocates or the opponents of the doctrines we investigate.

"'3. To carry this system into operation would require a separation of the issuing department from the other departments of the business of the bank, and this would cause still farther inconveniences. The management of the issuing department would be exceedingly simple. The office of the directors would be a complete sinecure, and, for anything they would have to do, their places might be as well supplied by four-and-twenty broomsticks. A few cashiers to exchange gold for notes or notes for gold would be all the establishment required; and, could Mr. Babbage be induced to construct a "self-acting" machine to perform these operations, the whole business of the currency department might be carried on without human agency. But the deposit department would require more attention. "It is in the nature of banking business," says Mr. Loyd, "that the amount of its deposits should vary with a variety of circumstances; and, as the amount of deposits varies, the amount of that in which those deposits are invested (viz., the securities) must vary also. It is, therefore, quite absurd to talk of the bank, in its character of a banking concern, keeping the amount of its securities invariable." As, therefore, the deposits might vary, the bank would be a buyer or a seller of Government securities; and, as these variations are sometimes to a very large amount, the fluctuations in the price of the public funds, and of exchequer bills, would be very considerable. Thus, the property of those who held these securities would be always changing in value. Again, the deposits would be withdrawn chiefly in seasons of pressure, and the bank would then be compelled to sell her securities. But suppose the scarcity of money should be so great that the securities would be unsaleable even at a reduced price, how then could the bank pay off her deposits?

"'4. If the currency were administered upon this principle, the bank would be unable to grant assistance to the commercial and manufacturing classes in seasons of calamity.

"'Mr. Loyd exclaims, "Let not the borrowers of money, Government and commerce, approach, with their dangerous and seductive influences, the creator of money." But, with all deference to Mr. Loyd, we contend that it is the province of a bank to afford assistance to trade and commerce in seasons of pressure. Mr. Loyd, as a practical banker, would no doubt afford assistance to his own customers in such seasons; and, if this be the province and duty of a private banker, the duty is more imperative on a public banking company, and more imperative still on a bank invested by the Legislature with peculiar privileges for the public good. Mr. Loyd says, "Let the bank afford this assistance out of her own funds." But, under Mr. Loyd's system, she could grant assistance only by selling securities; and what relief would she afford by selling securities with one hand, and lending out the money with the other? Besides, is it certain that, under such a pressure as Mr. Loyd's system must occasionally produce, these securities would be

saleable at even any price? "But," says Mr. Loyd, "individuals may afford this assistance." In seasons of pressure few individuals have more ample funds than what are necessary for the supply of their own wants. . . . When the distress is caused by a contraction of the currency, it can only be removed by an increased issue of notes. And there are many cases, such, for instance, as that of the Northern and Central Bank, in which assistance can only be effectually rendered in this manner.

"'We consider that any system of administering the currency, which prohibits the banking institutions of the country from granting relief to the commercial and manufacturing classes, must be unsound. We should condemn such a system at once, even if we could not detect the fallacies on which it was founded. In political economy we can judge of principles only by their practical effects—and any system which produces these effects must be unsound. When seasons of calamity occur, it is not for the national bank to exclaim, *Sauve qui peut!* They ought to co-operate with the Government in attempting to relieve the distress, and to preserve the tranquillity of the country.'

"These remarks, written in the year 1841, might, if put into the past tense, almost serve for a history of the year 1847. The Act of 1844 was formed upon the principle which is here condemned; and the effects described have actually occurred. There have been great fluctuations in the amount of the circulation, in the rate of interest, and in the prices of the public securities. There have been great speculations, followed by great distress. The Government funds have in large amounts been unsaleable; and the bank has been unable to afford relief to the commercial classes. A severe pressure has taken place; and, in consequence of this severe pressure, the Act was suspended. It has been denied that this pressure was produced or increased by the Act. But, how stand the facts? The Act was passed, and, as predicted, a pressure came: the Act was continued, and the pressure increased: the Act was suspended, and the pressure went away. These are not opinions —they are facts."

3.—The Laws of the Currency.*

"An acquaintance with the laws of the currency will enable us to refute some of the theories that have been advanced respecting the currency—to repel the accusations that have been brought against the country banks—and to judge of the plans proposed for its regulation.

"First, an acquaintance with the laws of the currency will teach us to expect the monthly fluctuations as naturally as we expect the recurrence of the seasons; and we shall estimate at their due value those

* See the article on the Laws of the Currency at page 168.

theories which would prove that the country is on the road to ruin or to prosperity because the amount of the circulation is higher or lower than in the preceding month. Nor shall we ever expect that two currencies, governed by different laws, will correspond in their fluctuations. It would be absurd, for instance, to expect that the country circulation should correspond with those quarterly variations in the circulation of the Bank of England occasioned by the payment of the public dividends. And, again, with regard to the annual variations. The amount of the country circulation is governed very much by the price of corn—that of the Bank of England by the amount of her bullion. How absurd to expect that these should at all times correspond! Nor shall we suppose that this want of conformity occurs merely from having different banks. Even had we but one bank of issue for the whole nation, a constant conformity between the London and provincial circulation could never be maintained. An importation of gold would expand the London circulation, and an exportation of gold would contract the London circulation. But the country circulation could never expand and contract in immediate conformity, and in certain seasons of the year would show a progress in an opposite direction.

"Secondly, an acquaintance with the laws of the currency will enable us to repel the accusations which are sometimes advanced against the country bankers.

"One of these charges is, that, from a spirit of competition, the country bankers issue their notes to excess.

"Every practical banker knows that he cannot extend his circulation beyond what the wants of his district require; and though his notes may cost him nothing at the time he issues them, he will have to provide funds to meet them on their return. The laws of the currency will insure the speedy return of all country notes not required by the wants of the community; and then the bankers' advances, even if at first made in notes, become an advance of capital. We have found by those banks of issue that have failed through making imprudent loans to traders, that the amount of their circulation bore so small a proportion to the amount of their advances, as to show that the desire of maintaining a circulation could have been no adequate inducement for the advances. The main profits in such cases are usually derived from the rate of interest and the high commissions which are charged,—and hence these large advances are generally made by non-issuing banks.

"Another charge against the country bankers is, that, by their excessive issues, they have raised the prices of commodities.

"We admit that the *immediate* regulator of price is the proportion between supply and demand; and we think, that whenever notes are issued otherwise than to meet the demands of trade, they have a tendency to increase demand. A facility of obtaining money induces people to go into new undertakings, and hence there is a new demand

for certain commodities. On the other hand, when money is scarce the sellers become more numerous than the buyers—supply is increased relative to demand—and hence prices fall. While, however, we consider it to be a law of our currency that notes not issued for the purposes of trade have a tendency to raise prices, we are ready to admit that such tendency may be directed, retarded, or even counteracted, for a time, by the prudence of commercial men. Our author has selected several periods in which an increase in the amount of the currency did not produce a general increase of prices. But all his instances are taken from within a short period. Now, in 1836, our merchants suffered so severely from a contraction of the currency, that they were afterwards very cautious against the ensnaring effects of a full currency. The abundance of money in 1838 did not lead to commercial speculation, but it led to investments in American securities. It is evident that abundance of money will not cause an advance in the price of any commodity, unless it is employed to purchase that particular commodity; and it will affect the prices of different commodities according to the quantity of money that is brought to bear on each individual market.

"But a main charge against the country bankers has been that their issues affect the foreign exchanges; and to such an extent, that they have counteracted the effects of the Bank of England to arrest a drain for bullion. To do this, the country issues must either raise the prices of commodities or lower the rate of interest. But it is evident that notes issued only to meet the demands of trade, and which are returned when no longer required, can produce neither of these effects. The country banker cannot buy gold or Exchequer bills, or Government stock, with his own notes; nor can they be employed to pay foreigners for goods that are imported. And as to the rate of interest, the country bankers, unlike the London bankers, allow interest upon deposits, which tends to keep up the rate of interest. In country districts it is the trade which regulates the currency, not the currency which regulates the trade. In London, that portion of the currency which is not issued in supplying the wants of trade, but in the purchase of bullion, has a tendency, by lowering the rate of interest, and furnishing inducements to speculation, to lead to larger importations of foreign goods, and investments in foreign securities, and hence to turn the exchanges. It is in consequence of not observing the distinct laws by which these two kinds of currency are governed, that much confusion has arisen, and much undeserved censure has been cast upon the country bankers.

"Thus we find that the laws of the currency refute the theory that the country circulation can be increased and diminished by the mere caprice of the country bankers—that it exercises an influence upon the prices of commodities, and regulates the foreign exchanges. They repel the accusation that the country bankers, by their spirit of compe-

tition, have issued an excessive amount of their notes, and counteracted the efforts of the Bank of England to regulate the exchanges. They show, that as far as regards the country circulation of England and Wales, of Scotland and of Ireland, no regulation is required;—that the circulation must fluctuate according to the demands of trade and agriculture; and that any law to increase or diminish those fluctuations, so as to make them conform to any other standard, would necessarily be injurious.

"The regular fluctuation in the same periods of each succeeding year is a sufficient proof that these fluctuations are regulated by the seasons, and not by the influence of the bankers. Neither caprice, nor avarice, nor ignorance, could produce such uniform effects; while the difference in the *annual* averages of the circulation is accounted for from circumstances wholly beyond the control of the banks. The proportion which is maintained from year to year between the circulation of the private and the joint-stock banks, shows that the reckless spirit of competition charged upon both has no foundation with reference to either; while the gradual decline of the issues of both from year to year is a proof that neither have the power to extend their issues beyond the limits fixed by those laws which regulate the circulation of the country."

"Thirdly, another advantage arising from an acquaintance with the laws of the currency is, that we are able to form a better judgment of those plans that are proposed for the regulation of the currency.

"It would be well if those writers who come forward with their plans for regulating the currency, would first inquire whether the currency required any regulation—whether the evils which strike them so forcibly, instead of showing the need of regulation, do not prove the existence already of too much regulation—and whether the theories they advocate are not at variance with those laws by which the currency, when uncontrolled by legislative interference, is always found to be governed.

"These laws incontestably demonstrate, that even if regulation be necessary, no one system can be adapted to all the various currencies which exist in the United Kingdom. We have shown that the circulation of the Bank of England has four revolutions in a year, being at its highest point in those months in which the public dividends are paid. The country circulation revolves once in a year, being at its highest point in April, and its lowest in August. The circulation of Scotland revolves once in a year, being at its lowest point in March, and its highest in November. The circulation of Ireland revolves also once in a year, being at its lowest point in September, and its highest in January. These changes are not capricious or accidental, but are determined by the recurrence of the seasons and the state of trade in their respective districts. How, then, is it possible to apply one uniform rule to these various currencies? The idea of doing so was ridiculed by Sir Walter Scott in the 'Letters of Malachi Malagrowther.' He

compares it to the conduct of an old gentleman, who, having derived benefit from the use of Anderson's pills, always insisted, after dinner, that every one of his guests should take a '*leetle Anderson.*'"

4.—Limited Liability.

The opinions of J. W. Gilbart, F.R.S., General Manager of the London and Westminster Bank, respecting Partnerships in commandite with reference to Joint-Stock Banks, communicated to the Commissioners in the year 1854.

"Without attempting to answer all the questions of the Commissioners, I am ready to state my opinion generally upon the question of limiting the liability of shareholders in joint-stock banks.

"1. I do not think it desirable to limit the liability of the shareholders in joint-stock banks, unless such limitation were accompanied by other measures that should afford equal security to the public.

"2. I do not think that at present the joint-stock banks are worse managed than they would be with limited liability. Nor do I think that the bad management of some joint-stock banks has in any degree arisen from the unlimited liability of the shareholders.

"3. I do think that in some cases, when there was good reason to believe that the banks had lost a part or the whole of their capital, they still retained the confidence of the public, and of the London bill-brokers, from a knowledge of the fact that all the shareholders were answerable to the whole extent of their property for the debts of the bank.

"4. I believe that when joint-stock banks have stopped payment, the stoppage has caused less excitement and inconvenience in consequence of the unlimited liability of the shareholders. And I believe only three instances have occurred of joint-stock banks not paying all their creditors in full; and, in these cases, the creditors, either individually or collectively, accepted a composition.

"5. I believe that three instances have occurred of joint-stock banks stopping payment, and afterwards going on again through the assistance obtained from their proprietors. And I think it may be questioned whether the shareholders would have made these exertions were it not for their unlimited liability.

"6. I believe it is undoubtedly true that many wealthy men abstain from becoming shareholders in joint-stock banks in consequence of the unlimited liability; and that, though friendly to the principles of joint-stock banking, they take shares only in those banks which have charters limiting the liability.

"7. I think it desirable that wealthy men should be encouraged to become shareholders in joint-stock banks; because, by their influence, they bring business to the bank; because the bank has then a greater

number of persons from whom to choose suitable directors; and because when such shareholders address the directors, either privately or at public meetings, in the language of caution or advice, their social position gives greater weight to their admonitions.

"8. I think, therefore, it is desirable that the public should have permission to form joint-stock banks with limited liability; provided they complied with certain conditions, to be fixed by the Legislature; and provided means were adopted to ascertain that those conditions were permanently observed.

"9. I believe, that, in forming joint-stock banks with limited liability, it is desirable that they should be formed by Act of Parliament, without any reference to the Treasury.

"Negotiations with the Government, in reference to bank charters, are found to be tedious and expensive. It would be better that the Legislature should state explicitly the conditions required. Those banks that choose to comply with these conditions, should be permitted to have limited liability: those that did not comply with these conditions, should not have the privilege.

"10. I believe there would be some difficulty in fixing upon these conditions:—For if the conditions were too stringent, no bank would comply with them; and, if not stringent, they might not furnish adequate security to the public.

"11. I believe, however, that certain general principles might be adopted, similar to those now embodied in the charters granted to the various colonial banks. These are—a fixed amount of paid-up capital; an extent of liability, on the part of the shareholders, to three or four times the amount of the capital; a restriction on the bank against incurring debts to the public, either by deposits, notes, or any other means, beyond a certain multiple of the paid-up capital; and a prohibition against engaging in other branches of business, or making certain classes of investments.

"12. In most deeds of settlement, the bank directors are prohibited to make investments in foreign securities, or to engage in any business but banking. In cases of limited liability, I think that these restrictions might be extended, so as to prohibit the making of advances upon dead securities,—as land, houses, collieries, &c.; the re-discounting bills of exchange; the granting of loans above a certain proportion of the capital to any one individual, or to any one firm.

"13. In limiting the liability of the shareholders, I do not think it would be desirable to make any difference between banks that issue notes and those that do not. Most of the joint-stock banks that have stopped payment did not issue notes; and those that did issue notes, made provision to pay off the notes immediately, in order to avoid the suits that solicitors and others who held these notes might bring against them. And I think, too, that to make a distinction between banks that

issue notes and those that do not, would give a sanction to those absurd notions which are prevalent among certain political economists, as to the dangerous character of banks of issue.

"14. I think that the existing banks of issue, containing not more than six partners, ought to be allowed to increase the number of their partners, either with or without limited liability; and ought not on that account to be deprived of their privilege of issue. I think, too, that if two issuing joint-stock banks in England should unite, then the united bank should be allowed to issue to the amount of the issues of both the united banks, as is the case in Scotland and Ireland. And I think this arrangement should in no way be affected by the limitation of the liability of the shareholders.

"15. I think that if any existing joint-stock banks should comply with the prescribed conditions, and become a bank with limited liability, but should afterwards find these conditions to be injurious, this bank should, on giving six months' notice, be allowed to return to its former state, and again become a bank with unlimited liability.

"16. With regard to commandite partnerships generally, the Commissioners will get better opinions than mine. As to their dealings with bankers, I see no objection to them, provided they are honestly conducted. But I think means should be taken to guard against fraud or misrepresentation.

"If the agent of such a company brings to his banker bills to be discounted, and tells him that certain parties are partners, who are not partners; or that a certain capital is paid up, which is not paid up: then that agent ought to be punished; and that, too, without any trouble or expense to the party whom he has attempted to defraud. It is not enough that the banker may get correct information, by going to some public office or hunting through the Gazettes. I think it ought to be incumbent on such companies to give ample information to every person with whom they deal; and that a neglect to do so should be punished criminally.

"17. I think, in introducing this new system of partnerships in commandite, an officer might be appointed whose duty it should be to prosecute all frauds committed by the partners or agents of such companies. This officer, too, in case of failure, should take immediate possession of all the property of the company; and not permit the estate to be frittered away, as is often the case at present, while the creditors are considering what steps to adopt. If this experiment of appointing a public prosecutor should be found to succeed with regard to commandite partnerships, the plan might be extended to other partnerships; and hence might arise a great improvement in our commercial law."

5.—The Prices of Commodities.

"Another charge that has often been preferred against banks of circulation is, that by an increased issue of their notes they have caused a general rise in prices.

"In investigating this charge, it will be proper to inquire what are the cases in which an increased issue of notes may produce a rise in prices.

"It cannot be denied that if any bank have the privilege of issuing notes, not convertible into gold—that is, not payable in gold on demand—the notes may be issued to such an amount as to cause a considerable advance in prices. It is now generally believed that the issues of the Bank of England during the operation of the Restriction Act did produce this effect. It may also be admitted that in a country where there is one chief bank possessing an immense capital and unbounded confidence, the notes of such a bank, even if payable in gold, may be issued to such an extent as to cause an advance of prices, until an unfavourable course of the exchange shall cause payment of the notes to be demanded in gold. For gold will not be demanded until the course of the exchange is so unfavourable as to cause the exportation of gold to be attended with profit. Hence the issues of the Bank of England being at present under no other restraint than liability to pay in gold on demand, may for a time cause an advance in prices.

"In cases where the increased issue of notes is caused by the increased quantity of commodities brought to market, the additional amount of notes put into circulation does not cause any advance of prices. In all agricultural districts there is a great demand for notes, about the season of harvest, to pay for the produce then brought to market. In the south of Ireland the amount of notes in circulation is much greater in the winter, when corn and bacon are being exported, than in the summer months. Almost every trade and every kind of manufacture is carried on with more activity at some periods of the year than at others; and during the active seasons when money is in demand, more notes are in circulation. These notes are at such periods drawn out of the banks, either as repayments of money lodged, or by discount of the bills drawn against the exported commodities.

"An increased issue of notes often causes the production of an additional quantity of commodities, and in this case does not produce an advance of prices. The issue of notes will be either in the form of discounts, or loans, or the repayment of deposits. In either case the parties receiving the money will spend it, and a demand will thus be occasioned for a certain class of commodities. If this demand should not exceed the quantity that can be readily supplied, there will be no advance of price. The parties who receive the money from the banker may give it to the dealer in exchange for the articles they purchase.

The dealer wishes to replace the goods he has sold, and passes the money for more goods to the manufacturer. The manufacturer consequently buys more raw material and employs more labourers. An increased quantity of goods is thus produced, and exchanged against the increased quantity of money. But while the supply can keep pace with the demand, the price will remain the same; it is only when the demand exceeds the supply, and the commodities are consequently comparatively scarce, that the price will advance.

"In many cases, an increased issue of notes is not the *cause* but the *effect* of an advance of prices. If a Yorkshire clothier sells a thousand pounds' worth of goods to a London merchant, he will draw a bill for a thousand pounds, and take it for discount to a country banker, whose notes for a thousand pounds may thus be put into circulation; but if, in consequence of a scarcity of wool, or from any other cause, the goods that were sold for a thousand pounds are now worth two thousand pounds, then will the banker discount a bill for two thousand pounds, and put into circulation two thousand pounds of his notes. In this case it is obvious that the issue of notes is not the cause of the high price of wool; but that the high price of wool is the cause of the increased issue of notes. Such is often the case with many other commodities. A real or apprehended scarcity causes an advance in price. The same commodity exchanges for a greater quantity of money. The bills are drawn for higher sums, and the bankers who discount these bills issue, of course, a greater amount of notes. The rise in price, too, renders more capital necessary to carry on the same extent of business. Many persons who had money in the bank on interest will now draw it out, to employ it in their trade, and these operations will occasion a still farther issue of notes. A rise in the price of one commodity will sometimes advance the price of other commodities, and hence similar banking operations are effected by persons engaged in other branches of trade. The process by which high prices cause an increase in the amount of notes in circulation, can thus be easily and obviously traced.

"In cases where an increased issue of notes does cause an advance of price, the advance can be but temporary, and this advance may generally be ascribed to a spirit of speculation on the part of the dealers, and not to an excessive issue on the part of the banks. As the prices of all commodities are regulated by the proportion that may exist between the demand and the supply, whenever an increased issue of notes raises prices, it must be either by increasing the demand for commodities, or diminishing the supply. The cases in which an increased issue of notes may cause an advance of prices, are chiefly those in which the money is employed in purchasing such commodities as cannot be readily produced by human labour. Thus, if a banker lend money to a corn merchant to purchase a stock of corn, he increases the demand for corn. If he lend money to a farmer to enable him to pay

his rent without selling his corn, he diminishes the supply. In both cases he may cause an advance in price. But even in this case, the most unpopular that can well be imagined, the effect on price will be but temporary: for these speculations do not diminish the quantity of corn in the country. The supplies now withheld must ultimately be sold, and in proportion as they advance the price when withheld, will they lower the price when brought to market. A degree of speculation in some commodity or other is always on foot, and occasions fluctuations in the price. The banks have no control over these speculations, and ought not to be deemed answerable for the changes they occasion. To suppose that the banks can so regulate their issues as to maintain permanent prices, is to ascribe to them a power which they do not possess, and which, if they did possess, they ought never to use.

"There are various cases wherein an increased issue of notes causes a reduction of prices. The speculations which advance prices are chiefly those carried on by *dealers*. The speculations of *producers* who invest their capital in new undertakings, with the view of producing any given commodities at a less cost, will, if successful, reduce the price to the consumer, and so far as such speculations are assisted by the banks, the issue of notes thus occasioned tends to the reduction of prices. An advance of money which enables a farmer to bestow a higher degree of cultivation on his land—or which enables a manufacturer to extend his business—has the effect of increasing the quantity of commodities offered for sale, and, consequently, to reduce the price. The banks, too, by advancing capital on lower terms than it could be otherwise obtained, diminish the cost of production, and, consequently, the price. The banks still farther reduce prices by destroying monopoly. In towns where there are no banks, a few moneyed men have all the trade in their own hands; but when a bank is established, other persons of character are enabled to borrow capital of the bankers. Thus monopoly is destroyed, competition is produced, and prices fall. Hence it is obvious, that *in the ordinary course of business* the issues of the banks tend not to advance but to lower prices."

6.—Books on Banking.

"Most of our readers are probably aware of the controversy that is now going on among the members of the book trade. It is not our intention to take any part in this dispute, but merely to consider in what way the present custom of the trade affects the publication of books on banking. The following is the usual practice. When a publisher brings out a book, say at six shillings, this is called the *selling* price. But he sells it to the trade at a discount of 25 per cent. —that is, at 4*s.* 6*d.*, which is called the *trade* price. But first he sends round to the other members of the trade to ask how many copies they

will buy, absolutely taking on themselves the risk of the sale. For the copies thus subscribed for, he charges 4*s.* 2*d.*, which is called the *subscribed* price. But if any bookseller subscribes for as many as twenty-four copies, he receives, according to the custom of the trade, a twenty-fifth copy for nothing. This reduces the price per copy to 4*s.*, which may be termed the *wholesale subscribed* price.

"The publisher may be the owner of the book by having purchased the copyright from the author; or he may, by agreement, take the risk of the sale, and give the author half the profits; or he may publish it on account of the author, and charge him a commission of 10 per cent. on the amount received for the copies that may be sold. Books on banking have usually so limited a circulation, that a publisher will rarely be willing to bear any portion of the risk. Hence they are generally published by commission, at the risk and expense of the authors.

"From this it appears, that when a book on banking is advertised at 6*s.*,

	s.	*d.*
The *retail* price to the purchaser is	6	0
The *trade* price from the publisher to the retail bookseller is	4	6
The *subscribed* price from the publisher to the retail bookseller is	4	2
The *wholesale subscribed* price, when the retailer takes 24 copies, is	4	0
The *author's price* which he receives from the publisher, after the charge of 10 per cent. commission, is . . .	3	7

From the amount the author thus receives from the publisher, he must pay the cost of production, including paper, printing, and binding, the cost of advertisements, the number of copies (say twenty to fifty, according to circumstances) presented to public libraries, and reviewers (who, whether they review the book or not, never return it), and the loss on those copies that may remain unsold. It should be stated, also, that whether the publisher sells a book at the retail, trade, subscribed, or wholesale subscribed price, he never gives the author more than the wholesale subscribed price, after deducting his commission, in the above cases 3*s.* 7*d.* While, too, the author has to pay his printer, binder, advertisements in ready money, or at short credit, for the whole number he prints, he gives the publisher twelve months' credit for what he sells—that is, there are annual settlings, commencing at about twelve months after the publication of the work.

"The publishers are also wholesale and retail booksellers; and they retail to the public at the selling price the books they have published. Some other retail booksellers are willing to sell these books at a lower price. The publishers have determined not to sell their books to these cheap booksellers. Hence arise the present dissensions in the trade.

"This dispute is not a new one. A similar squabble took place about

twenty years ago, and is described by Mr. Babbage in his 'Economy of Machinery and Manufactures,' published in the year 1832. The publishers say that they ought not to be expected to allow themselves to be undersold by the retail booksellers. Their opponents say that there is obviously too great a difference between the selling price and the author's price; the public either pay too much, or the author gets too little. We have illustrated these charges by taking the publication price at 6*s.*; but the same proportion would exist at any other price. If a book be published at 12*s.*, the author gets 7*s.* 2*d.*; if at 24*s.*, he gets 14*s.* 4*d.*

"On this system, books that necessarily have a limited circulation, such as those on banking, never can yield any profit to the author, much less repay him for the time and labour expended on their composition. And we may inquire, whether the effect of this system is not obvious in our banking literature? Where are our literary men who wrote on banking? Why have we not antiquities of banking gleaned from the writings of the Greeks and Romans, in the same way as we have 'antiquities' of almost everything else? Who has given us a history of banking during the middle ages? Why have we not a banking dictionary, similar to Mr. McCulloch's 'Commercial Dictionary?' And why have we not a banking biography, containing the lives of eminent bankers, as well as a biography of the lives of eminent painters and musicians? To all these and many similar questions there might be advanced, we have the conclusive commercial reply—'It won't pay.' A literary man must live by his profession; but were he to write upon banking, he would starve. Hence our banking authors are chiefly bank officers, who have written their books as the profitable amusement of their leisure hours: and then they have been willing to lose a little money for the chance of the honour, or the fame, or the promotion which may possibly attend their publication.

"The only way of obviating these injurious effects on the literature of banking, appears to be, first, for every bank to have a bank library, and to purchase every respectable book on banking that is published, so that a banking author may calculate beforehand on a sure sale for a certain number of copies. A further improvement would be, for banking authors to publish their books by subscription, and for all bankers and banking libraries to subscribe. We have shown that the difference to the author in the price he gets for his book is in the proportion of 3*s.* 7*d.* to 6*s.* When an author publishes by subscription, he receives the retail price, and is at no expense for advertisements. When he publishes by commission through a bookseller, he gets only the wholesale subscribing price, subject to a ten per cent. commission, and has also to pay the cost of advertisements. The reader pays in each case the same price, and surely he would rather give the whole 6*s.* to the author, who has laboured for his instruction, than give him only 3*s.* 7*d.*,

and hand the remaining 2*s.* 5*d.* to the booksellers. Mr. Francis published his 'History of the Bank of England' by subscription, and we observe Mr. Sharp is about to publish his 'Banking Prize Essay' in the same way.

"But it is useless for authors to announce a readiness to publish their works by subscription, if the banking interest will not subscribe; and although the utility of a banking literature cannot be denied, few, we fear, are willing to make any great exertions in order to support it in a proper manner. No individual banker thinks it his duty to consult the interest of the whole body; and before he even subscribes for a book, he asks for a proof that he shall individually receive the full value for his money. Even directors and managers of joint-stock banks—'*tell it not in Gath*'—are seldom disposed to make any great exertions for the general good, unless it can be shown that their own bank will receive some direct advantage; while among bank officers generally there is many an individual who has yet to learn, that whatever tends to ennoble the profession to which he belongs, tends in the same degree to exalt himself."

7.—The Principles of Sir Robert Peel's Plan of Finance.

"1. The first principle adopted by Sir Robert Peel is, that direct taxation is better than indirect.

"There are several advantages connected with *direct* taxation. It is a sure method of obtaining the sums required—a direct tax requiring each individual to pay a sum of money into the public Treasury is sure to produce a certain amount. The produce of an indirect tax upon tea or sugar, for example, must depend upon the consumption of the commodity. Dean Swift observes, that in the customs two and two do not always make four—sometimes two and two make only one. An increase of taxation may so diminish consumption, that the produce of the tax may be diminished. Again, direct taxation does not take from the community a greater amount than what is received by the Government; indirect taxation not only takes away from the community the amount of the tax, but, by the restrictions it throws upon trade and industry, it injures the community to a further extent. Direct taxation has also this advantage—that it perpetually reminds the tax-payers of the evil of taxation, and, consequently, of the evil of the principal cause of taxation—the inhuman practice of war. Indirect taxes are taxes in disguise. When taxes are identified with the prices of commodities, they are paid unconsciously, and hence, however large the amount, they are not so much canvassed. It is probable, too, that direct taxes cause the payers to adopt a system of economy, by which they save the sum they have to pay to Government, and hence the increased expenses of the State are supplied by the increased economy of individuals.

"2. The second principle adopted by Sir Robert Peel is, that each

individual should contribute to the support of the State in proportion to the amount of his annual income.

"This principle appears obviously just, and yet it has been the one most violently assailed. One party contends that each individual should not contribute according to the amount of his income, but according to the sources from whence his income is derived.

"If his income is derived from that of land or houses, dividends from the public funds, or any other kind of property, then he should pay his quota; but if his income is derived from any trade or profession, then, say they, he should pay nothing. It is difficult to discover the justice of this principle. The objects of taxation are to support the Government and constitution of the country—to provide for the efficient administration of the laws—to guard against internal violence and external invasion. All classes have an interest in these objects, and, consequently, all classes should contribute towards the means necessary for their accomplishment. It is in consequence of the security which society enjoys through the influence of the property class that trades and professions can be carried on so successfully and so profitably as they are. In case of a serious rebellion in the country, or a temporary invasion by a hostile Power, the fortunes of people in trade would probably sustain greater injury than those who have property; and why, then, should they not pay for the protection they enjoy?

"It may be observed, too, that the property class render a variety of gratuitous services to the State. They compose the two Houses of Parliament, and the magistracy throughout the land; they provide for the local administration of justice, and they supply the officers of our army, who receive an amount of pay wholly inadequate to the expenses they are required to support. It may further be urged, that a large amount of property is embarked in trades and professions. Few trades can be carried on without capital, and in some of our commercial and manufacturing establishments the capital is very considerable; and with what justice, we ask, can it be maintained that property invested in the funds at three-and-a-half per cent. is to pay taxes; but if employed in trade at ten per cent. profit, it is to be wholly exempt. Another party contends that men should not contribute to the expenses of the State in proportion to the amount of their income, but according to the saleable value of that income. The Long Annuities expired in 1860. The Bank of England has a Government annuity that will expire in 1867. Now, it is contended that we should take into account the time these annuities have to run, and make a corresponding deduction in the amount of taxation. We do not perceive any reason in this principle. The State requires, say 4,000,000*l.*, for the service of the present year; and it is proposed that each man shall pay in proportion to the income he will receive in the present year. No, say these parties; we ought not to pay according to our present incomes, because five-and-

twenty years hence our incomes will cease. Well; when your incomes cease, you will cease to be taxed; but why should these incomes not be taxed as long as they last? It is quite true that land will continue to yield rent, and the public funds may continue to pay dividends after your annuities have expired, and of course they may continue to be taxed; but how does that prove that your annuities should not pay taxes in proportion to their amount, during the time they have to run?

"Besides, if terminable annuities can claim a partial exemption from taxation, what deduction is to be made upon the incomes derived from trades, professions, and salaries, the greater part of which are far more precarious, and may be of much shorter duration? A clerk in the Bank of England, whose office depends upon his health and other contingencies, must pay three per cent. on his salary: but the Bank of England objects to pay in the same proportion on her annuity, because it will expire at the end of four-and-twenty years. How many of her clerks would be happy to be assured that their salaries would last as long! Besides, if terminable annuities can claim a reduction of taxation, what is to be done with leasehold property, and incomes dependent upon the duration of lives, and other contingencies? If we begin to make exceptions upon this ground, where are we to stop? Again, it has been contended that men should not contribute to the wants of the State in proportion to the amount of their incomes, but in proportion to the amount of their savings, after deducting their expenditure. Thus, as it is supposed—a supposition not always correct—that bachelors save more money than married men, it is contended that they ought to be more heavily taxed. Those who do not contend openly for this principle, contend for it indirectly, by pointing out the oppressive nature of the income-tax upon those who have wives and families. Judging by the tone of these writers, they seem to imagine that wives and families are calamitous visitations of Providence, which give the men who have them peculiar claims to commiseration. As far as our observation goes, we find that family men have usually those prudent habits which render them as well able as others to sustain the proposed burden; and we think we might successfully contend, that as a man with a family receives the protection of the State for a greater number of persons, he ought to pay more liberally towards its expenses. But however this may be, it is certain that the Government cannot investigate every man's expenditure, and apportion his taxes to the amount of his savings. In this point of view, the income-tax is, no doubt, an unequal tax; but it has this character in common with every other tax that could possibly be imposed. A tax upon any article of consumption,—upon houses or upon lands,—would be more or less burdensome upon individuals, according to their respective circumstances. These inequalities of condition are not produced by the tax; but are the necessary result of the constitution of human society.

"3. The third principle adopted by Sir Robert Peel, is, that taxation should press as lightly as possible upon the poorer classes of the community.

"All incomes of less than 150*l.* per annum are exempt from the operations of this tax. In point of numbers, this exempts by much the larger portion of the community. It exempts all who are engaged in manual labour, the greater number of clerks in the counting-houses of merchants and others, all the inferior classes of tradesmen, and all widows and others whose incomes consist of small annuities or dividends from the public funds. The tax falls exclusively on the comparatively wealthier classes; and it is a tax of a kind that cannot be transferred to the poorer classes. Indirect taxes, though paid to the Government in the first instance by the importer or the dealer, fall ultimately upon the consumers; but an income-tax must come out of the pockets of those by whom it is paid. But this is not the only way in which Sir Robert Peel guards the interests of the poor. This remission of taxes on articles imported from foreign countries has a reference mainly to articles of food or clothing, or houses or furniture; and though the benefit of a reduction in the prices of all those articles is not confined to the poor, but extends to all classes of the community—yet, as the purchase of these articles forms a larger portion of the expenses of the poor, their advantage is proportionably greater. But the poor are also benefited by the creation of a new demand for their labour, by taking off the duties on the exportation of British manufactures. This brings us to the next principle.

"4. The fourth principle adopted by Sir Robert Peel, is, to remove or reduce those taxes that tend to the obstruction of our commerce with other countries.

"It is not necessary to point out the general importance of commerce, nor its peculiar value to our own country. The employment of our industry, the comfort of our population, and the existence of our political power, depend upon our commerce. All nations of modern times are convinced of the importance of commerce; but all nations have, more or less, obstructed its operations by the imposition of heavy duties. The object of Sir Robert Peel is to extend our commerce, by the reduction or removal of such duties; and his plan embraces no fewer than seven hundred and fifty articles. Thus, he not only relieves the country, by making a large remission of indirect taxation, but multiplies the comforts of the population by bringing a great variety of commodities within the means of purchase of a larger portion of the community. No reduction is proposed to be made in the duties on the wines and spirits of France, or on the sugars of Brazil. It is intended that these shall be hereafter arranged in commercial treaties to be made with those countries. In such treaties, it may be stipulated that France shall take our hardware in exchange for her wines, and that

Brazil shall not render our taking her sugars the means of adding to the horrors of slavery.

"5. The fifth principle adopted by Sir Robert Peel, is, that the duties upon the importation of raw produce should be of a less amount than those levied upon the importation of manufactured articles.

"The object of this regulation is to protect and encourage our own manufactures. Manufactures have enriched every country in which they have been established. They promote the comfort and happiness of the people—they supply the means of purchasing a large amount of commodities from other nations, and they give employment to a large portion of the labour and industry of the community. Mr. Babbage has stated some curious instances of the great value given to a commodity by the application of manufacturing industry. A pound of cotton wool, when spun, has been worth 5*l.* sterling; and, when wove into muslin and ornament in the tambour, is worth 15*l.*, yielding 5,900*l.* per cent. on the raw material. An ounce of fine Flanders thread has been sold in London for 4*l.*; such an ounce, made into lace, may be sold for 40*l.*, which is ten times the price of standard gold, weight for weight. Steel may be made three hundred times dearer than standard gold, weight for weight. Six steel springs for watch pendulums weigh one grain—to the artists 7*s.* 6*d.* each, equal to 2*l.* 5*s.* One grain of gold costs only twopence. A quantity of lead that costs 1*l.*, when manufactured into small printing type, will sell for 28*l.* A quantity of bar iron that cost 1*l.*, when manufactured into needles, will sell for 70*l.*; into the finest kind of scissors, it will sell for 446*l.*; as gun barrels, it will sell for 236*l.*; as blades of penknives, 657*l.*; as sword handles, polished steel, 972*l.* So a service of cut glass or of fine porcelain, will cost many hundred times the value of the raw materials of which it is composed. Now all this additional value is bestowed upon these raw materials mainly by labour; and hence manufactures tend to enrich a country, because they give employment to all the labour of the community. The most profitable trade a nation can carry on is in exchanging manufactured goods for raw produce. It is, therefore, a wise policy in Sir Robert Peel to encourage the *importation* of raw produce, and the *exportation* of manufactured commodities. On the proposed plan, the import duties on raw produce can never exceed five per cent., while the duties on the importation of manufactures range as high as twenty per cent., and all duties on exportation are abolished. As a further protection, the exportation of coals, which may be used as a means of supporting rival manufactures in foreign countries, is subjected to an export duty, whether taken out in foreign or in British ships.

"6. The sixth principle adopted by Sir Robert Peel, is, that the produce of our own colonies should be subjected to a lighter scale of taxation than the produce of foreign states.

"It is not now necessary to refute the notion advanced a few years

ago by some political economists as to the inutility of colonies. Such a notion is opposed to the common sense of mankind in every age of the world. The empires of Greece, Carthage, and Rome were supported by their colonies, and the loss of those colonies was a prelude to their own destruction. The colossal power of Great Britain has one foot planted on her colonies, and when these are removed it falls for ever. Colonies are the means of supplying us with raw produce; they are a certain market for our manufactures; and they create a maritime power, which is a source of wealth in time of peace, and a means of defence in time of war. 'Ships, colonies, and commerce,' were the three great objects desired by Buonaparte. The country which has the colonies is almost sure to possess the other two. It is, therefore, the interest of Great Britain to encourage her colonial trade—a trade in which we cannot be supplanted by rivals or interrupted by war. In proportion as we increase the wealth and power of our colonies, we increase the wealth and power of the mother-country. Colonies, too, afford a refuge to the emigrant, who has to support a large family by the sweat of his brow: and they present fields of enterprise for those restless spirits who might do mischief at home. In seasons of war they afford supplies not to be obtained elsewhere; and, by presenting points of attack to the enemy, they become outworks of defence to the parent state.

"Such, we conceive, are the main principles of Sir Robert Peel's plan of finance."

PART VII.

ILLUSTRATIONS OF THE PRINCIPLES OF REASONING APPLIED TO THE ART AND THE SCIENCE OF BANKING.

SECTION I.

ILLUSTRATIONS OF REASONING WITH REGARD TO THE BANK CHARTER OF 1844.

"THE Act of 1844" is the 7 & 8 Vict. cap. 32, and is entitled, "An Act to Regulate the Issue of Bank Notes, and for giving to the Governor and Company of the Bank of England certain privileges for a limited period." It enacts that from and after the 31st August, 1844, the Issue department of the Bank of England shall be separated from the Banking department—that the issuing department may issue notes to the extent of 14,000,000*l.* upon securities set apart for that purpose, of which the debt of 11,015,100*l.* due from the Government to the bank shall form a part—that no amount of notes above 14,000,000*l.* shall be issued, except against gold coin, or gold or silver bullion; and that the silver bullion shall not exceed one-fourth the amount of gold coin and bullion. Any person is entitled to demand notes from the issuing department, in exchange for gold bullion, at the rate of 3*l.* 17*s.* 9*d.* per ounce. Should any banker discontinue his issue of notes, the Bank of England may, upon application, be empowered by an Order of Council to increase her issue upon securities to the extent of two-thirds of the issue thus withdrawn; but all the profit of this increased issue must go to the Government.

Those who are opposed to the Act of 1844 bring against it the following accusations:—

First. The Act of 1844 is accused of having produced

abundance of money, a low rate of interest, and thus stimulated to excessive speculation.

According to this Act, all persons are entitled to demand from the issue department of the Bank of England, Bank of England notes in exchange for gold bullion, at the rate of 3*l.* 17*s.* 9*d.* per ounce of standard gold. When, therefore, the foreign exchanges are favourable to the importation of gold, this gold, consisting of gold bars and foreign gold coin, which could not be used as money in this country, is taken to the issue department, and instantly converted into Bank of England notes. The amount of notes is thus increased beyond what the transactions of the country require. Money becomes plentiful, the rate of interest falls, and the low rate of interest gives facilities to speculative undertakings.

It must be acknowledged that, previous to the passing of this Act, the bank directors had adopted the principle of purchasing all foreign gold that might be offered them at 3*l.* 17*s.* 9*d.* an ounce; and it formed a feature of their system of management, as explained before a committee of the House of Commons in the year 1832. When the advocates of the Act say that it is only during a season of pressure that the Act comes into operation, they can mean only that it is during such a season that the system established by the Act differs from the system previously in existence. The Act is as much in operation when it gives out notes as when it gives out gold.

It must also be acknowledged that on the 31st August, 1844, when the Act came into operation, there was a large amount of gold in the bank, and a low rate of interest consequently prevailed. This gold had accumulated, not literally in consequence of the Act, but in consequence of the principle embodied in the Act. From the adoption of this principle, the gold in the vaults of the bank still farther increased after the passing of the Act.

It must be farther acknowledged, that although the Act requires the issue department at all times to issue notes against gold, it does not require that the Bank of England shall at all times issue 14,000,000*l.* against securities. The

Act merely requires that the amount *shall not exceed* 14,000,000*l.* And a London banker who was examined as a witness before the Lords' Committee, said he expected that when the Act came into operation the bank would not issue at first more than 11,000,000*l.* against securities, and that the remaining 3,000,000*l.* would not be issued until the rate of interest had advanced to 3½ or 4 per cent. But the Act did not require the Bank of England to adopt this course; and its adoption would probably have been considered by some parties as a departure from its principle. For it is a fundamental principle of the Act, that the amount of the circulation shall jerk up and down in exact conformity to the importations or exportations of gold. And hence during a favourable course of exchange money must be abundant, and interest must be low.

It is alleged that the Act still farther reduced the rate of interest, and promoted speculative undertakings, by placing the Bank of England in a position in which the directors were led to adopt a new system of management.

In September, 1844, soon after the Act was passed, the directors, whose rate of interest had never previously been lower than 4 per cent., reduced it to 2½ per cent. The object of this reduction was to invest a larger portion of their funds in the discount of bills. It is stated that, to effect this object, the directors not only reduced their rate of discount, but also canvassed for business, and thus gave a stimulus to new transactions. They had been told that the banking department of the Bank of England was to be managed "like any other banking concern using Bank of England notes." And it is not an unusual thing for bankers, when they cannot employ their funds at so high a rate of interest as they wish to obtain, to employ them at a lower rate. Nor is it unusual for a banker to offer his surplus cash to bill-brokers and others, who are known to be in the habit of supplying bankers with bills. But however consistent the conduct of the directors may have been with banking principles, the reduction of the bank rate of discount immediately caused a reduction in the market rate, and in the rates charged by

bankers throughout the country. For it must be observed, that when the bank lowers her rate of interest upon money in seasons of abundance, it has the necessary effect of reducing the market rate of interest still lower than the bank rate. Suppose, for instance, the bank discounts at 5 per cent. and the market rate of discount is 4 per cent., of course no bills are offered for discount to the bank. Then the bank, to get discounts, lowers her rate of interest to 4 per cent. A portion of bills that were previously discounted by private bankers and bill brokers will then be taken to the bank; but the notes thus drawn from the bank make money still more plentiful, and the market rate falls to $3\frac{1}{2}$ or 3 per cent. Now, should the bank reduce her rate to 3 per cent., the same effects would again follow. For the additional notes thus drawn out would make money so abundant, as to reduce the market rate of interest to $2\frac{1}{2}$ or 2 per cent., and so on.

But in seasons of scarcity, precisely the opposite effect follows. For when the bank raises the rate of discount, it has the effect of raising the market rate still higher. Thus, if the bank should be discounting at 5 per cent. and the market rate should be $5\frac{1}{2}$ per cent., let the bank raise her rate to 6 per cent. and the market rate will immediately become 7 or perhaps 8 per cent., or even higher, upon inferior bills. For the bank rate of discount will be the market rate for only the first class of bills—such bills as could be discounted at the bank; and all bills of the second class will have to pay an advanced rate, and those of a still more inferior character will not be discountable at all.

In 1844 the rate of discount was lower than in any previous season of abundance of money. This low rate of interest was produced, in the first place, by the principle of the Act of 1844, which caused the issue of a large amount of notes against gold and silver bullion; and, secondly, by that provision of the Act which separated the two departments, and thus brought the banking department of the Bank of England into competition with other bankers and money dealers, as discounters of bills. The directors of the bank seem to think

that the spirit of the Act of 1844 required that the bank should employ its reserve.

"If we keep the notes in the reserve, instead of giving them out to the public, the effect that ought to be produced by gold coming into the country is counteracted; it induces a larger amount of capital to come into the country, because you do not allow that portion which has come in to be employed. If you do not put out the gold, or the representative of gold, you entirely prevent its having any effect upon the circulation. The exchange will be kept up, and gold will continue to come in."

Thus it appears that, although there is no positive enactment in the Act respecting the management of the banking department, the directors so understand its spirit as to believe that when gold is going out of the country they ought to take measures to prevent its exit; and when gold is coming into the country, they ought to endeavour to drive it back again. The first object is attained by raising the rate of interest very high; the second, by reducing it very low. It must, however, be acknowledged that, apart from any efforts of the banking department, a large importation of gold will, under the Act, necessarily cause a low rate of interest.

Secondly. The next charge against the Act of 1844 is, that it does not admit of those occasional expansions of the amount of notes in circulation which are often required by the domestic transactions of the country.

It is alleged that one imperfection of the Act was strikingly manifested in the beginning of the year 1846. The Parliament required that all railway companies that intended to apply for an Act should lodge 10 per cent. on their capital within fifteen days after the meeting of Parliament. It was impossible to say beforehand what amount of notes would be required to make these payments. It was variously estimated at from 12,000,000*l.* to 25,000,000*l.*, while all the notes in the hands of the public amounted to only about 20,000,000*l.* Ultimately the railway companies of Ireland and Scotland were allowed to make their payments in Dublin and Edinburgh, respectively; and the payments in London did not amount to more than 14,000,000*l.* This large sum was paid

by means of the banking department of the Bank of England lending out the money as fast as it was received. Had the Act of 1844 not been in existence, the Bank of England (as in the case of the West India loan, and of previous loans) might have lent out the money before the time of payment arrived, and no apprehensions would have been entertained. The notes in circulation would have been largely increased for a few days, and then again have subsided to the former amount. As it was, the payment was not made through any virtue in the Act. And had it been required under different circumstances, or when the banking department had a smaller reserve, it could not have been made at all.

It is farther alleged, that the Act of 1844 requires an immediate contraction in the amount of the notes whenever gold is exported for merely a temporary or specific purpose. Between March 13 and April 24, 1847, 2,237,200*l.* was exported in payments for corn. An equal amount of notes was of course cancelled by the issue department. These notes must have been taken out of the hands of the public, or from the banking department of the Bank of England. About the same time, the Government had occasion to borrow of the banking department about 3,500,000*l.* to pay the April dividends. The banking department, consequently, for a while limited their discounts, and even refused to grant loans on exchequer bills. Great pressure was consequently felt, though it did not last for a long time. Now it is alleged, that if the Act of 1844 had not existed, the directors would have allowed the gold to be exported without *immediately* contracting the notes in circulation. They would have lent the money required by the Government, without refusing the loans and discounts to the public; and the contraction of the circulation, by being extended over one or two months, instead of a few weeks, might have produced no inconvenience.

By the Act of 1844, the circulation of the country banks was restricted to a certain amount. The average of the twelve weeks ending the 27th of April, 1844, was fixed for the maximum. During some months in the year the country requires more notes than this maximum; and, as the banks

can issue no more notes of their own, they obtain Bank of England notes from London. In the year 1845, Acts of Parliament were passed for the regulation of the notes issued in Scotland and Ireland. Beyond certain fixed amounts, the banks in these countries are required to hold gold equal to the amount of notes in circulation. In both countries this circulation fluctuates. In Scotland, the highest amount is in November; in Ireland, the highest amount is in January or February. In these months they require more gold, and this gold they obtain from the issue department in exchange for Bank of England notes. Before the Act of 1844 the circulation of the country parts of England, of Scotland, and of Ireland, expanded or contracted as required by the wants of the public, without affecting the London circulation of the Bank of England; but, under this Act, the expansion of the circulation of the country banks, the banks of Scotland and of Ireland, are attended by a contraction of the circulation of Bank of England notes in London. This may not be a matter of much consequence in ordinary times, when the banking department of the Bank of England has a large reserve; but in seasons of pressure, such as occurred in 1847, this drain on the London circulation may be more severely felt.

It may be further stated, that the withdrawal or discontinuance of a certain amount of bills of exchange, through loss of credit or otherwise, would render a larger amount of bank notes necessary to fill up the space formerly occupied by those bills of exchange. But for such a circumstance no provision is made by the Act.

Thirdly. It is alleged that the Act of 1844 tends to produce and to aggravate pressure, and at the same time deprives the Bank of England of the power of granting adequate assistance, even when the pressure is most urgent, and when assistance can be rendered without any danger of affecting the foreign exchanges.

This objection assumes that a pressure is an evil. It assumes, that to advance the rate of interest to a rate which no profit can afford to pay—to deprive solvent houses of the means of meeting their legitimate engagements—to cause a

universal reduction of prices, and thus to baffle the calculations of even the most prudent—to reduce wealthy merchants to the condition of paupers—to deprive manufacturers of the means of executing their orders, and thus to throw thousands of industrious people out of employment—to sell to foreigners large amounts of goods and manufactures at less than the prime cost, thus causing a great national loss—to paralyze the national industry—to stop the progress of useful works—and to destroy confidence and credit—the objection assumes, that a pressure which produces effects like these is a national evil. And such must have been the opinion of those who suspended the Act, and of those who approve of that suspension; for it was to prevent or to remove evils like these that the Act was suspended.

It is alleged that the Act tends to produce such pressures. By issuing notes against all the importations of gold, it causes abundance of money, lowers the rate of interest, and stimulates to speculative undertaking (thus the low rate of interest in 1844 and 1845 stimulated the railway speculations), and then, speculation is always succeeded by pressure. If, therefore, similar causes produce similar effects, and if the future shall resemble the past, the operation of the Act of 1844 will tend to produce pressure.

It is further alleged, that when a pressure occurs without being produced by the Act, then the Act tends to aggravate the pressure. An unfavourable course of the exchange may be produced by a large importation of corn. The Act requires that the exchange shall be rectified by an exportation of gold, and that this exportation of gold shall be attended by a contraction of the domestic circulation (according to the present meaning of the word circulation) to an equal amount. It is hardly necessary to show that these regulations must aggravate a pressure.

It has been said, that the pressure of 1847 was produced by the railway speculations and the famine, and *therefore* it was not produced or increased by the Act of 1844. We do not perceive the soundness of this reasoning, and it seems to show a forgetfulness of the peculiar operation of the Act. The

Act requires that the amount of notes in circulation shall fluctuate in exact accordance with the amount of bullion. Railway speculations, famine, foreign loans, or a hundred other things, may turn the foreign exchanges, and cause gold to be exported; but it is the Act which causes our circulation of notes to be contracted in proportion as the gold is withdrawn. So a hundred different circumstances may cause gold to be imported, but it is the Act which causes the circulation to be inflated in correspondence with this increased amount of gold. Herein, we think, is the injurious operation of the Act. When the exchanges are favourable, gold is imported. The gold is in bars and foreign coin, and could not pass as money. But the Act issues notes against this gold, thus increasing the circulation, lowering the rate of interest, and giving rise to speculations of all kinds. These speculations, co-operating possibly with other causes, turn the exchanges. Notes are then taken to the bank, and gold demanded, for the purpose of being exported. This contraction of the circulation of notes produces pressure, and the apprehension of further pressure produces panic.

They who contend that the Act of 1844 has not "in the slightest degree tended either to create or to increase the pressure" of 1847, seem to be inconsistent in contending, at the same time, that the Act has preserved the convertibility of the bank note. It was the pressure and the high rate of interest, and low prices consequent upon the pressure, that checked the efflux of gold, and turned the exchanges. Now, if the Act had no effect in producing or increasing that pressure, the convertibility of the note, by whatever causes it was secured, was not secured by the Act. If the Act did not in the slightest degree either create or increase the pressure, in what way, we ask, could it preserve the convertibility of the note? It appears to us that those who contend that the Act preserved the convertibility of the note are bound by consistency to admit that the Act produced or increased the pressure.

It is further alleged that the Act aggravates a pressure by the "panic" which it creates. It is stated that, during the

pressure of 1847, notes to the amount of 4,000,000*l.* were hoarded under the influence of panic, and this hoarding was occasioned by the provisions of the Act. It must be acknowledged, however, that something of this kind has taken place in former pressures. We noticed this circumstance with reference to the pressure of 1836, and again with reference to the pressure of 1839.

"A contraction of the circulation leads to a general apprehension of danger. Hence the bankers and others keep larger reserves of bank notes on hand, in order to be prepared for the worst, and thus the evils of the contraction are considerably increased. 'That portion of the notes of the Bank of England which is passing from hand to hand, may be called the active circulation. That portion which is hoarded, or kept in reserve to meet possible demands, may be called the dead circulation. Now, it is quite certain that the dead circulation, while it remains in that state, has no effect upon the prices of commodities—the spirit of speculation—or the foreign exchanges. These are affected only by the active circulation. In seasons of pressure the dead circulation is increased at the expense of the active circulation, because people hoard their money to meet contingencies. Hence we find the pressure is often more severe than the reduction of the bank circulation would seem to warrant. But the fact is, that the pressure is in proportion to the reduction of the active circulation, and not in proportion to the reduction of the whole circulation. On the other hand, in seasons of abundance, the dead circulation is diminished, the active circulation proportionably increased, and hence the stimulus given to trade and speculation is much greater than the returns of the Bank of England would warrant us to expect.'"

If this disposition to hoard—or, more properly, to make provision for future or contingent demands—existed in 1837 and 1839, when the Bank of England had the unrestricted power of issuing notes; when there was the most unbounded confidence in her ability to render assistance—and when every solvent person expected, if necessary, to receive that assistance—it is natural to suppose that this disposition would

be stronger in 1847, when the Bank of England had become divided into two departments—one of which could issue no notes except against gold, and the other had barely notes enough to meet its own obligations. For this alteration in the condition of the Bank of England, and the consequent feelings it inspired, the Act of 1844 is clearly responsible.

It is said that this desire of "hoarding" arose from PANIC; and that the sum thus "hoarded" amounted to 4,000,000*l.* of notes. It is difficult to state where prudence ends and panic begins. This hoarding was no doubt carried on by all the joint-stock and private bankers, who, having received from the public large sums of money payable on demand, deemed it prudent to put themselves in a condition to repay these sums in case they should be demanded. And, from the number of banking establishments that exist in London, and throughout the country, it is reasonable to suppose that the sums thus hoarded must have been considerable. Many private parties, too, from distrust of their bankers, probably kept their hoards in their own hands. No blame, however, can attach to the bankers; for, although this "hoarding" increases the pressure, yet, were they not to adopt this course, their banks might stop payment, and thus a heavier calamity would fall upon the public.

It is further alleged that the Act of 1844 has deprived the Bank of England of the power of granting assistance by the issue of notes during a pressure, even when the pressure is most urgent, and the foreign exchanges are favourable. Before the passing of the Act, when there was no separation of departments, the bank directors restricted their issues when the exchanges were unfavourable, but extended them when the exchanges were favourable. Hence, during the pressure of 1837, they granted assistance by a farther issue of notes to the Northern and Central Bank, because the exchanges had become favourable. Between the periods of an efflux and an influx of gold there is always an interval of time. This interval is usually the highest point of the pressure; and heretofore the Bank of England would relieve the pressure by extending her issue of notes, in anticipation of the gold

about to arrive. By this means solvent houses were prevented stopping, confidence was restored, "hoarding" was diminished, and the pressure removed. But the Act of 1844 does not allow this. No additional notes can be issued until the gold has returned. The same course must be followed, whether the exchanges are favourable or unfavourable; and to anticipate the return of the gold, by a further issue of notes, under any circumstances, however urgent, would be a departure from the principle of the Act. That such a departure, however, may be made with immense advantage to the public, is obvious from the effects which immediately followed the suspension of the Act in October, 1847.

It is chiefly in this respect that the system established by the Act differs from the system previously in operation. And some of the witnesses, looking no farther than this, merely recommended that a power to suspend the Act in cases of severe pressure, should be lodged either with the Government or the bank. We feel no regret that the Legislature did not comply with this recommendation. It is this inflexibility of the Act which makes the commercial classes *feel* the unsoundness of its whole principle. Had a dispensing power been granted, we should merely have fallen back upon the previous system, with the additional disadvantage that the bank would never be able to adopt a better system, even if so disposed. The directors had for several years professed to govern the issue of notes by the foreign exchanges, but departed from that principle according to their discretion. The Act of 1844, by its inflexible enactments, put this principle to the test of experiment. The principle could not bear that test, and hence the Act was suspended.

In confirmation of the leading divisions of the above section, published in the year 1849, we shall cite the opinions of some of the Directors of the Bank of England, as laid before the Committee of the House of Commons upon the Bank Charter Acts in the year 1857.

First. The Act of 1844 is accused of having produced abun-

dance of money, a low rate of interest, and thus stimulated to excessive speculation.

In confirmation of this opinion, we quote the letter addressed to the Governor by Mr. Bonamy Dobree, the present Deputy-Governor of the Bank of England:—

"It has always appeared to me that the main object of the framers of the Act of 1844 was to secure the convertibility of the bank note, and so to arrange as that the influx of gold bullion should have the same action and effect on the circulation of the country as would be produced were it actually in coin, instead of being represented by notes; and, secondly, to guard against violent fluctuations in the value of money.

"Now, in my opinion, this latter object has failed to be attained by the Act of 1844.

"The gold bullion has oscillated between 8,000,000*l.* and 22,000,000*l.*, whilst the active notes have ranged between 17,000,000*l.* and 24,000,000*l.*; thus showing a variation between the extreme points of 14,000,000*l.* in the first, and only 7,000,000*l.* in the last case; and these last referred to amounts were exceptional, the ordinary range being 18,000,000*l.* and 22,000,000*l.*, or a difference of but 4,000,000*l.* in place of 14,000,000*l.*

"The consequence of this has been that, in periods of over-abundance of gold bullion, the reserve of notes in the bank's till has risen to 14,700,000*l.*, notwithstanding simultaneous efforts to force the issue, and to lower thereby the rate of discount; thus giving a great impetus to speculation, and enhancing the value both of securities and produce: when, on the other hand, a drain of gold bullion has set in, and the reserve of notes fallen to under 2,000,000*l.*, this has been attempted to be met by a rapid increase in the rates of discount, causing severe pressure in the mercantile interest, and followed by a marked decline in the value of the funds and of all securities, as well as in the price of all commodities.

"These violent and sudden ebbs and flows—of which there have been various recurrences during the past twelve years, evidenced, in my opinion, by forty variations in the rates of discount, from 2 per cent. the lowest, to 8 per cent. the highest; whilst in the previous ten years there were but ten changes between 2½ per cent. the lowest, and 6 per cent. the highest—could not have been foreseen, I think, by the promoters of the Act of 1844, and act very prejudicially upon the trading communitiy, for whose particular benefit and safeguard the Act would seem to have been specially framed.

"One remedy, in my mind, would be found by relieving the bank from the obligation of buying all gold bullion in exchange for notes at 3*l.* 17*s.* 9*d.* per ounce.

"Were the obligation removed, gold in seasons of plethora would

find its own market value, or it would be taken to the Mint to be coined; and in this latter case the redundant circulation of the country would consist in coined gold, and not in Bank of England paper as at present."

As a further confirmation, we now quote the language of Mr. Weguelin, the Governor of the Bank, in his letter to the Chancellor of the Exchequer:—

"The Act, and more especially the reasoning of its supporters, encourage a dangerous theory that the Bank of England in its banking department may, in all respects, act as would a private banker in the management of his deposits. It thus favours the competition with private money-lenders, which in periods of large deposits is apt to produce an unwarranted inflation of credit."

In his evidence before the Committee, Mr. Weguelin gives a further confirmation of our first proposition. But he says, that it is not the low rate of interest, but the abundance of money, that gives rise to speculation. As both these causes are contemporaneous, it seems hardly worth while to inquire which is the efficient cause. It is a mode of reasoning which is familiarly called, "the splitting of hairs." In either case, however, the following evidence is confirmatory of our sentiments:—

"The low rate of interest is an indication of a large amount of capital which is seeking employment. That amount of capital seeking employment is not the property of the bank, but it is the property of the depositors and the customers of the bank, who, quite independently of the bank rate of interest, are anxious to find some means of investing their unemployed capital, and it is the desire of those persons to invest that unemployed capital which gives rise to the spirit of speculation. In my view, the rate of interest is merely an index of the amount of unemployed capital seeking investment. It is not the cause of the speculation, but it is merely an index to it."

Secondly. The next charge against the Act of 1844 is, that it does not admit of those occasional expansions of the amount of notes in circulation, which are often required by the domestic transactions of the country.

On this point we quote the language of the Governor, Mr. Weguelin:—

"The quarterly oscillation of the English circulation amounts to

from 2,000,000*l.* to 2,500,000*l.* in notes, and probably from 500,000*l.* to 800,000*l.* in coin. There is also noticeable a weekly vibration of both notes and coin. These effects are produced by the payment of dividends, salaries, wages, &c., and the receipt on the other hand for revenue and the setting free of circulation by the gradual disbursements of the public.

"I notice this ebb and flow of the circulation, to show how the proportion of bullion which guarantees the active circulation may vary. For instance:—The active circulation at one time of the quarter is 18,000,000*l.*, at another 20,500,000*l.*: as 14,500,000*l.* are issued on securities, it follows that 3,500,000*l.* is the bullion guarantee of 18,000,000*l.*, and 6,000,000*l.* the bullion guarantee of 20,500,000*l.*, or a varying proportion of 19 and 29 per cent.

"Now with regard to the oscillation of the internal circulation of the country, I may notice that there is, periodically, a demand for currency from the Scotch and Irish banks, which, whilst it produces a most sensible effect upon the Bank of England reserve, is uncontrollable by any action of the bank. At certain periods of the year, especially after harvest, the demand for currency commonly greatly exceeds the authorized issue; and as the excess must be issued on gold deposited in certain specified places, that gold is withdrawn from the bank reserve, to be again restored to it when the reflux of the currency of the Scotch and Irish banks takes place, which is usually in the months of December to March. The Scotch banks very generally exceed their authorized aggregate issue; but with the Irish banks, although the aggregate issue is not usually exceeded, yet it often happens that some are in excess, whilst others are under the authorized amount. But as each bank has to provide for its own excess, the demand on the London bullion reserve is as great as if the whole Irish circulation had gone beyond its limit.

"Again, there are times and circumstances in the external demand for treasure which may render the maintenance of the limit impossible; circumstances, I mean, over which no action of the bank can exercise control. I allude to Government loans in a state of war. The Government is enabled to borrow on its stock to an amount, and at a rate of interest, which has no affinity to the rate of discount which the bank may think it necessary to demand. Having made its contract for the loan, it can use the proceeds by exporting treasure for the payment of troops on foreign service, wholly irrespective of any action on the part of the bank."

Thirdly. It is alleged that the Act of 1844 tends to produce and to aggravate pressure, and at the same time deprives the Bank of England of the power of granting adequate assistance, even when the pressure is most urgent, and when assist-

ance can be rendered without any danger of affecting the foreign exchanges.

With reference to this charge, we again quote the language of the Governor, Mr. Weguelin:—

"In periods of a drain of bullion, it makes no distinction as to the causes of the drain. Its theory is, that the bank should be governed in its action by the rate of interest out of doors; and that whenever it has the power to raise the rate of discount, it should use it. But here no distinction is drawn between a drain for exports, which is the consequence of an inflation of credit, and a drain for the internal accommodation of the country, which may be caused by discredit, or which may merely represent the natural oscillation of the currency.

"These two causes, in my opinion, require opposite treatment.

"The limitation of issue, which in the former case is salutary by forcing the bank to defend its treasure by action on the rate of interest or restriction in the discount of bills, in the latter case of internal discredit would add to and intensify the difficulty; or, in the case of the natural oscillation of the currency, leads to erroneous conclusions in the public mind as to the true position of the bank in times of difficulty."

We further quote the language of another director, Mr. John Horsley Palmer:—

"It has had the effect of creating an undue expansion of credit upon the increase of bullion during a favourable exchange with foreign countries by the frequent and great reduction in the rate of interest by the Bank of England, with the view of increasing the amount of bills of exchange under discount at such reduced rates of interest, which, when established, did not accomplish the object to any extent. Witness the periods of 1844-45, 1848-49, 1850, and 1852. In a period of commercial discredit, subsequent to an unfavourable exchange with foreign countries, the bill has rendered the bank powerless under a temporary pressure on the part of the public (the unfavourable change having long ceased), by the limitation of issue imposed upon the bank when a much larger amount of gold was in the issue department than was requisite to secure the convertibility of the bank note. This was clearly exhibited by the effect produced by the Order in Council issued in October, 1847, upon the eve of a universal commercial failure in the metropolis; upon which order being issued, authorizing an unlimited issue of notes by the Bank of England, the demand for accommodation by the public immediately ceased."

SECTION II.

APPLICATIONS OF REASONING WITH REGARD TO THE CIRCULATION OF COUNTRY NOTES IN ENGLAND.

COUNTRY bank notes were originally called Goldsmiths' notes —similar notes having been first issued by the goldsmiths of London.

"That part of the business of banking which consists in the borrowing of money, with a view of lending it again at a higher rate of interest, does not appear to have been carried on by bankers until the year 1645, when a new era occurred in the history of banking. The goldsmiths, who were previously only money-changers, now became also money-lenders. They became also money-borrowers, and allowed interest on the sums they borrowed. They were agents for receiving rents. They lent money to the king on the security of the taxes. The receipts they issued for the money lodged at their houses circulated from hand to hand, and were known by the name of 'goldsmiths' notes.' These may be considered as the first kind of bank notes issued in England.

"When our merchants became enriched by commerce, they wished for a place of security in which they might deposit their wealth. Hence they usually sent their money to the mint in the Tower of London, which became a sort of bank. The merchants left their money here when they had no occasion for it, and drew it out as they wanted it. But in 1640, King Charles I. took possession of 200,000*l.* of the merchants' money that had been lodged in the mint; and from that period the merchants kept their money in their own houses, under the care of their servants and apprentices. On the breaking out of the civil war between Charles I. and the Parliament, it became very customary for the apprentices to rob their masters, and then run away and join the army. As the merchants could now place no confidence either in the public authorities or in their own servants, they were under the necessity of employing bankers. These bankers were the goldsmiths."

Bank notes are frequently referred to in our Acts of Parliament as "Bankers' or Goldsmiths' notes."—In the Act of 1704, which removed all "doubts" as to their legality, they are mentioned as "notes made and signed by any person

or persons, body public or corporate, or by the servant or agent of any corporation, banker, goldsmith, merchant, or trader." Even the notes issued in Ireland were called goldsmiths' notes. By an Act of the Irish Parliament passed in 1709, "Notes issued by any banker, goldsmith, merchant, or trader," whether payable to order or bearer, were rendered assignable and indorsable over as inland bills of exchange. And in 1729, the forgery of bills of exchange, goldsmiths' or bankers' notes, above the value of 5*l.* was declared felony, and the felon was to be burnt in the hand or transported at the pleasure of the Court.

After the establishment of the Bank of England in the year 1694, the notes of that corporation superseded the goldsmiths'. The business of banking, too, became gradually separated from that of a goldsmith, though we learn from a speech delivered in Parliament, in the year 1746, that most of the London bankers were at that time members of the Goldsmiths' Company.

I am not aware that we have any authentic details of the rise and progress of country banking in England. It is generally understood that very few country banks existed previous to the American war—that they rapidly increased after the termination of that war—that they received a severe check in the year 1793, when twenty-two became bankrupt, and that they increased with wonderful rapidity after the passing of the Bank Restriction Act. Since the year 1808, every bank that issues notes had been compelled to take out an annual licence—and since 1804, the notes have been subject to a stamp duty. This duty was increased in 1808, and again in 1815.

In the year 1775, bankers were prohibited by Act of Parliament, to issue notes of a less amount than 20*s.* And in 1777, they were prohibited to issue notes of a less amount than 5*l.* But after the passing of the Bank Restriction Act in 1797, the last restriction was removed, and the country banks commenced issuing notes of 1*l.* and 2*l.* And in 1822, the permission to issue such notes was continued until the expiration of the bank charter in 1833. But after the memorable panic

of 1825, the government refused to issue any more stamps for notes under 5*l.*, and it was enacted that all such notes already stamped should cease to be issued by the bankers after the year 1829.

The speculations that preceded the panic of 1825 were attributed by the government of the day to a wild spirit of speculation fostered by the country banks. To guard against the recurrence of similar evils, not only were notes under 5*l.* abolished, but two other measures were introduced. Banks of Issue consisting of more than six partners were permitted to be formed at greater distance than sixty-five miles from London; and the Bank of England was induced to open branches in the provinces.

And here it will be proper to notice a peculiarity in the county of Lancaster, and particularly in Manchester and Liverpool. In these places there were no country notes, and but a small proportion of Bank of England notes. The circulation consisted mainly of bills of exchange, which passed from hand to hand like bank notes, having the endorsement of all the parties through whose hands they had passed. In Liverpool large notes were required to pay the duties at the Custom House; and in Manchester small notes were required to pay wages. These were obtained from the Bank of England in London: but the transactions between manufacturers and dealers were conducted by bills of exchange; and as these bills were all made payable in London, bank notes were not required in Manchester and Liverpool, even for the payment of these bills.

The measures adopted by the Legislature in the year 1826, led to the establishment of branches of the Bank of England in Manchester and Liverpool. From this period the circulation of bills of exchange declined, and was superseded by Bank of England notes. This was accelerated by the circumstance that the joint-stock banks formed in these places did not issue their own notes, but those of the Bank of England. This establishment had offered to discount for the joint-stock banks at 1 per cent. less than they charged to the public, and the joint-stock banks thought it more for their interest to

obtain the notes of the Bank of England on these terms, than to issue notes of their own. The circulation of the country now consisted of notes of the branches of the Bank of England, notes of the joint-stock banks, and notes of the private bankers; and as many of the weak private banks had ceased to exist, and as others had merged into joint-stock banks, and as all notes under 5*l.* were abolished, it was supposed that the country had now obtained the advantage of a secure circulation.

But in the latter end of the year 1836 another panic arrived, when it was discovered that the country circulation was again at fault. But the charge now was, not that it was unsafe, but that it was excessive; and this charge of having issued to excess was more especially directed against the joint-stock banks.

Here it may be observed that in the panic of 1825 the amount of country notes in circulation was unknown. No returns at that time were made to the government, and the amount of notes in circulation could only be calculated, and that very imperfectly, from the number of stamps, of different denominations, issued from the Stamp Office. But in the year 1833, the Chancellor of the Exchequer, Lord Althorp, obtained an Act (3 & 4 William IV. c. 83), which required all banks issuing promissory notes, to make returns to the Stamp Office of the average amounts of notes in circulation in the quarters ending the first day of January, April, July, and October in each year. The quarterly average was to be formed from the amount in circulation at the end of each week. These quarterly returns were afterwards published in the London Gazette.

From these returns it was evident that the country circulation had increased by the beginning of the year 1836; and as a general spirit of speculation prevailed at the same time, it was inferred that the country circulation was the cause of this speculation; and as, by the end of the year, the speculations had ended in panic, the country circulation was the cause of this panic.

Another panic occurred at the end of the year 1839; and

here again blame was cast on the country notes. But the complaint now was not that the country circulation was unsafe or excessive, but that it was ill-regulated. An opinion had been adopted by some distinguished Political Economists that the country circulation, as well as that of the Bank of England, ought to correspond at all times with the amount of gold in the Bank of England. It is true that the circulation of the Bank of England did not fluctuate in exact accordance with this amount of gold. But the country circulation did not correspond even with that of the Bank of England. And as the fluctuations in the country circulation did not correspond with the fluctuations either of the gold of the Bank of England or with the notes of the Bank of England, it was assumed that the country circulation was ill-regulated; and being ill-regulated, it was assumed to be the cause, or at least one cause, of the panic that occurred at the end of the year 1839.

To examine into the truth of these opinions, a Committee of the House of Commons was appointed in the year 1840, to consider the state of the law with reference to Banks of Issue. The Committee examined witnesses during the sessions of 1840 and 1841; but the only practical result was that an Act was passed requiring weekly returns of their circulation from every bank of issue.*

Such was the state of the currency question when the late Sir Robert Peel came into office in the year 1841. The Charter of the Bank of England was subject to renewal in the year 1844, and in that year was passed an Act of Parliament "to regulate the issue of bank notes, and for giving to the Governor and Company of the Bank of England certain privileges for a limited period."†

The charges against the country circulation had been, that it was unsafe, excessive, and ill-regulated. The Act of 1844 dealt chiefly with the second of these accusations.

According to the provisions of this Act, no new bank of issue was permitted to be established in the United Kingdom, and the maximum amount of notes which each existing bank

* 4 & 5 Victoria, c. 50. † 7 & 8 Victoria, c. 32.

of issue might issue upon an average of four weeks should, after the 10th October, 1844, be the average amount of the notes in circulation during the twelve weeks ending the 27th April, 1844: that returns should be made to government of the average amount of notes in circulation during each week; and if, upon an average of four weeks, the amount in circulation exceeded the authorized amount, the bank should be subject to a penalty equal to the amount of that excess. That if any existing bank not having more than six partners should increase the number of partners to more than six, it should lose the privilege of issue. That if any two banks should unite, so as to increase their number beyond six, they shall lose the right of issue. And if any banker shall become bankrupt, or cease to carry on the business of a banker, or cease to issue notes, it shall not be lawful for such banker at any time thereafter to issue any such notes.

The charge of being unsafe the Act did not meddle with, except so far as limiting the issues of each bank, and prohibiting any new bank of issue, may be regarded as elements of safety. But the Act of 1844 left the country circulation still unregulated by the amount of gold in the Bank of England. In the month of October, 1844, when the Act came into operation, the amount of gold in the Bank of England was 12,149,367*l.* On the 23rd of October, 1847, the amount of gold was 6,745,354*l.*, but the law required no corresponding reduction in the amount of the country circulation. On the 10th of July, 1852, the gold had advanced to 21,845,390*l.*, but the law permitted the country circulation no corresponding expansion. It does not therefore appear to have been the object of the Act, that the country bankers should regulate their issues by the amount of gold in the Bank of England.

The following are the average amounts of the country circulation during the previous five years—

	£
1839	11,715,527
1840	10,457,057
1841	9,671,643
1842	8,249,052
1843	7,667,916

This decline was attributed by the country banks to the dulness of trade, the low price of corn, and other temporary causes. But, doubtless, there were also other causes of a more permanent description. Some country banks had withdrawn their circulation, and issued the notes of the Bank of England, in consequence of advantageous proposals from that establishment. The increased facilities of travelling by railway, and other means, had tended to diminish the amount of notes in circulation, by causing them to be returned to the bankers more rapidly for payment. The uniform penny post commenced in January, 1840, and the registry of letters in July, 1841; and these enabled every country banker to send off to London every night the notes of other bankers he had received during the day, and thus the circulation was reduced. The practice of keeping banking accounts had also extended very much, so that, instead of carrying notes in their pockets as formerly, people now lodged their notes with their banker, and made their payments by giving cheques on the bank.

From these causes it seems probable that the actual issue of the country banks would not have regained its former amount, even if the Act of 1844 had never been passed. The Act, however, had the necessary effect to render the actual circulation less than even the authorized issue. If you apply a maximum to a fluctuating circulation, the average amount must be less than the maximum. If in April, when the circulation is at its highest, the amount is less than the maximum, it will fall still lower in August. The maximum, too, was divided among many banks; each banker was obliged to keep below his share of the maximum, and when all these shortcomings are added together they amount to a considerable sum. The penalty, too, was so great—equal for every offence to the amount of the excess—that prudent bankers kept their circulation much below their maximum, in order to avoid the chance of incurring these heavy penalties.

There are several circumstances which show that in some instances the Act was felt to be a restriction. Attempts have been made to evade its provisions. The first occurred when Sir Charles Wood was Chancellor of the Exchequer, and he

issued a circular letter to the country bankers, stating that if such attempts should be continued he would introduce a more stringent measure. The second took place more recently. When the Act was passed authorizing cheques to be drawn beyond fifteen miles upon a penny stamp, some banks issued on a penny stamp, cheques which, in form, resembled bank notes. The Stamp Act since passed prohibits this practice. We have observed, too, in reference to individual banks, that in the returns the fourth week is often less than the three preceding weeks. The average is taken every four weeks. If a banker finds that in the first three weeks he has exceeded his limit, he stops his own issues and sends to London for a supply of £5 and £10 Bank of England notes. Even this may not be sufficient, and then he sends his clerks round to all the neighbouring banks, asking, "Have you got any of our notes? If you have, we wish to pay them immediately, in order to keep down our average." Another circumstance which shows that the Act is felt to be a restriction is, that some joint-stock banks do not issue notes at all their branches. They issue to their authorized amount at a portion of their establishments, and at the rest they issue the notes of the Bank of England. A further symptom of the inadequacy of the country circulation is the increased circulation of the branches of the Bank of England. In 1836, when the country circulation was 11,700,000*l.*, the branch circulation was 3,500,000*l.* In the year 1846, the country circulation was only 7,700,000*l.*, and the branch circulation had increased to 6,500,000*l.*

The following are the fluctuations in the country circulation previous to 1844:—

"On inspecting the monthly returns of the country circulation for the last ten years, we find that the highest amount is in the month of April: thence it descends, and arrives at the lowest point by the end of August, which is the lowest point in the year. It gradually increases to November; a slight reaction takes place in December; but it then advances until it reaches the highest point in April. The general law is, that the country circulation always makes one circuit in the year—being at its lowest point in August, and advancing to December, and continuing to advance to its highest point in the month of April, and then again descending to its lowest point in August."

Upon inspection of the public returns, we find that the country circulation since 1844 has fluctuated in the same manner. We find, too, that the country circulation at these two periods (before and after 1844) conform to each other, not only in their compliance with these laws, but also in their exceptions to these laws. The years 1836 and 1839 were years of panic, and as panics usually occur at the end of the year, the country circulation at the end of these years was less than in the preceding August. The year 1847 was also a year of panic, and here we find, too, that the circulation was lower in December than in August—

	April.	August.	December.
	£	£	£
1836 . . .	12,403,634	11,658,494	11,228,594
1839 . . .	12,662,312	10,868,785	10,698,390
1847 . . .	8,024,168	7,133,525	5,939,007

The country circulation is divided into two classes—that of the private banks, and that of the joint-stock banks.

	£
167 Private Banks are authorized to issue	4,616,609
65 Joint-stock Banks are authorized to issue	3,325,857
Total authorized issue	£7,942,466

By the provisions of the Act, if any bank, not having more than six partners, should increase its partners to a greater number than six, it would lose the power of issue, and any bank that should once cease to issue, could not afterwards resume the power. Since the Act was passed, thirty-seven country private banks have ceased to issue: these are—

		£
11 banks within the circle of 65 miles, whose fixed issue was		110,194
26 banks without the circle of 65 miles, whose fixed issue was		426,604
37 Total.	Total	£536,798

Within the same period seven joint-stock banks, having a fixed issue of 169,589*l.*, have ceased to issue. The original certified issue of 8,648,853*l.* has thus been reduced to the above sum of 7,942,466*l.*

We will now classify the country circulation topographically. Within a circle of 65 miles of London, a circle of 130 miles in diameter, there is no joint-stock bank of issue. The issuing country banks may, therefore, be divided into those within this circle, and those without it. And we then find—

	£
47 Private Banks, within the circle, are authorized to issue	1,303,318
120 Private Banks, without the circle, are authorized to issue	3,313,291
65 Joint-stock Banks, without the circle, are authorized to issue	3,325,857
Total Country Circulation	£7,942,466

But we have referred here to the authorized circulation. We will now take a view of the actual circulation. We will take that of the year 1853, and refer to the months of April, August, and December—

	Authorized Circulation.	April.	August.	December.
	£	£	£	£
47 Private Banks, within the circle	1,303,318	1,010,932	940,184	984,581
120 Private Banks, without the circle	3,313,291	2,852,361	2,708,110	2,849,172
65 Joint-stock Banks	3,325,857	3,132,388	2,984,629	3,056,085

It will thus be seen that, as compared with their respective authorized circulations, the actual circulation of the private banks is less than that of the joint-stock banks, and that of the private banks within the circle is less than that of the private banks without the circle. At the same time each class of bank illustrates the law, that the country circulation is the highest in the month of April, and the lowest in the month of August (1854).

As an appendix to this section, I may adduce extracts from my own evidence before "the Committee on Banks of Issue" in the year 1841. It may be observed that at this period

some of our most eminent political economists contended that our currency ought to be regulated by the foreign exchanges, and that the amount of notes in circulation throughout the country should at all times be made to correspond with the amount of gold in the Bank of England. To refute this statement I constructed a number of tables, showing the oscillations which periodically took place in the circulation of the Bank of England, the country banks, the banks of Scotland, and the banks of Ireland. These tables I submitted to the parliamentary committee. The committee came to no resolution upon the soundness of the principles I laid before them; but I am gratified to observe that in 1857 several of the directors of the Bank of England gave similar opinions before the Committee on the Bank Acts. I shall here notice only the evidence that refers to the country banks:—

"The general law is, that the circulation always makes one circuit in the year, being at its lowest point in August, and advancing to December, and continuing to advance to its highest point in the month of April, and then descending to its lowest point in August. In this period of six years there are two exceptions to the rule with regard to the advances from the end of August to December, and those two exceptions are the years 1836 and 1839; those were two years of pressure; and in those two years the circulation, instead of advancing from August, as it would have done according to the ordinary law, declined; which shows that the country bankers could not increase their circulation to relieve themselves from the pressure, but were obliged, in consequence of the pressure, to let the circulation decline.

"The check upon the private bankers is, that their circulation cannot be issued to excess; whereas, if you had a bank which should issue notes for so much gold, then every time there was a favourable course of exchange, there would be a large issue of notes, which notes would necessarily reduce the rate of interest, lead to speculation, and turn the exchanges again by causing investments to be made in foreign countries. Now, as issues are at present conducted, bankers are under several checks which would not apply to such a bank; for instance, the check of the interchange with each other of their different notes once or twice a week, and the check of having their notes payable on demand; whereas the notes of such a bank as you suppose would not be diminished except when gold was wanted to be sent abroad. Another check is the practice of giving interest upon deposits, by which all the surplus circulation is called in and lodged with the banks; now, such a bank as you have supposed would not be under the control of those

checks, and it would be under the necessity of increasing the circulation whenever the exchange became favourable; and we know by experience, that the most sure way of making the exchanges unfavourable is a previous excessive issue; that previous excessive issue would necessarily arise, on the principle you have supposed, every time the exchange was favourable.

"I have stated that a banker, as a dealer in capital, may create a demand for additional circulation, and also, if he chooses to contract his advances, he may, no doubt, reduce the demand for that circulation; if a country banker has 100,000*l.* lent to different tradespeople all around him, if he calls that 100,000*l.* in, he will cramp and paralyse the trade of the district, and the result will necessarily be, that there will be a less demand for circulation, and therefore he may, by diminishing or increasing the amount lent to his customers, diminish or increase the amount of the circulation; but he has no power of increasing the circulation beyond the amount wanted for the trade of the country.

"I think that I have stated distinctly, that as a mere supplier of currency, he has not the power of contracting or increasing the amount of currency wanted for the district; as a dealer in capital, he may advance capital or withhold capital, and therefore that will have an effect upon the amount of currency; but if the question refers to the amount of his own notes, of course he can call in the amount of his own notes if he chooses to pay out the notes of another bank, or pay sovereigns instead.

"The country bankers generally have the same power as I have expressed with regard to one country banker; they have no power of extending their circulation beyond the legitimate wants of the district, because the notes will not circulate beyond the district, because those notes are payable on demand, because the bankers exchange with each other, and thus present for payment all superfluous notes, and because they draw from circulation, by giving interest for it, what is not in a state of activity; they have, however, the power of contracting their own circulation, by substituting another; but they have not the power of keeping from the district some kind of circulation adequate to what the trade of that district may require."

The following evidence was given by Mr. Weguelin, before the Bank Acts Committee :—

"Do you believe it is in the power of a country banker to regulate the amount of his issues by any means whatever, so as either to increase or to diminish them at his own pleasure?—He may diminish them, but it is hardly in his power to increase them, except by the gradual influence of his credit and position, and the extension of his business.

"Do you think that he could diminish his circulation, if he had a large amount of deposit belonging to his customers, below the amount

required for the convenience of his customers?—Of course he must substitute some other medium; if he did not issue his own notes, he must issue bank notes or gold in payment of his liabilities.

"He can only diminish the circulation of his own notes by substituting notes of the Bank of England, or by substituting coin, as a legal tender for his obligations?—Yes.

"But he could not, by any power that he possesses, either contract or increase the amount of his circulation as a whole?—No, I apprehend not.

"That would be determined by causes over which he had no power?—Certainly.

"Therefore, as long as a banker has a bank of deposit as well as of issue, the amount of his notes in the hands of the public must be determined by the wants of his customers, and not by his own will?—Yes; the amount of his circulation of course depends upon the wants of the public, not upon the wishes of the banker.

"Then I understand you to say, that whether as regards the Bank of England, or as regards country issuers, the amount of their circulation from time to time is not determined by the will of the one or the other, but by the wants of the public from time to time?—Certainly.

"In your former evidence, you stated that you had found by experience in the management of the Bank of England, that the bank had no power of its own, either to increase the amount of notes in the hands of the public, or to diminish them at any particular moment?—No, I think that is independent entirely of the management of the banking department of the bank.

"Do you know of any reason why a different rule in that respect should apply in the case of country banks; do you think they have more power over their issue than you have over yours?—No, I think not.

"When you say that bankers have no power over their issues, do you mean that they have no power to increase the permanent aggregate amount, or do you mean that they have no power to increase the amount at any particular time?—I think that as bankers they have no power to increase their circulation; I think it is possible that at times when there is a great spirit of speculation in the country, the circulation of bank notes may increase by reason of the increased wants of the country to support that speculation.

"That is when there is an increased activity of trade, whether it be speculative or real?—Just so; such as large works going on.

"And high prices?—And high prices.

"But the increased circulation would be the consequence, not the cause of such a state of things?—Just so."

Letters were laid before the Bank Acts Committee of 1857

from several private and joint-stock banks of issue, asking for an extension of the averages, and for permission to issue notes against equal amounts of gold and silver, in the same way as the banks of Scotland and Ireland.

"We beg to call your attention to clauses 13, 17, 18, and 19, which provide that the averages of our circulation, taken for each succeeding period of four weeks, shall not exceed certain fixed limits.

"We beg respectfully to represent, that, in consequence of the shortness of the time permitted us by these clauses for taking the averages, we are unable to avail ourselves of our circulations to the full extent granted us by law, by amounts varying from 5 to 10 per cent. of our circulations, according to circumstances.

"At certain seasons of the year there are temporary demands for increased local circulation, arising from fairs and other causes. We cannot at these times extend our circulations, for fear of being unable to contract them, so as to reduce the average within the limit in the short time allowed for that purpose, and are therefore compelled to substitute gold and Bank of England notes, to the no small annoyance of our customers, gold being an inconvenient medium of exchange for large amounts, and Bank of England notes not being freely taken in country districts. When this temporary demand ceases, a further effect of this unnatural restriction is felt by us: our circulations contract, and we are unable to restore them to their natural limit until another period of activity commences.

"We beg respectfully to represent, that if the time permitted us for taking the averages of our circulations were extended from one month to six months, and the year divided into two periods of six months each, we should then be able to avail ourselves of our circulations to very nearly the full extent permitted us by law, and to facilitate the transaction of business to our customers and the public generally. We believe that bankers throughout the country would look upon this change with great satisfaction; and as it would not in any way infringe upon the principle of the Act of Parliament above referred to, we beg respectfully to suggest that this change should be embodied in the Bill to be brought before the House of Commons during the present session.

We would further respectfully represent that, by the Scotch and Irish Banking Acts of 1845, 8 & 9 Vict. c. 37 and 38, which are complements to the English Act of 1844, the Scotch and Irish banks are allowed to issue, beyond their fixed limits, a sum equal to the amount of gold and silver held by them respectively, in accordance with the principle which regulates the issue department of the Bank of England.

"We therefore respectfully suggest that we should be put upon the same footing as the Scotch and Irish banks in this respect, and thus be

enabled to meet with greater regularity and certainty the legitimate business wants of our respective districts than we are able to do at present, and to obviate the difficulties and inconveniences under which we at present labour. As this would be in entire accordance with the principles of the legislative measures of 1844 and 1845, we trust that Parliament will see no difficulty in granting the concession."

The enactments against the formation of new banks of issue, and against banks of not more than six partners continuing their issues, should their number exceed six, are thus referred to by Mr. Wilson, the late Secretary of the Treasury, in his examination of Mr. Weguelin before the Committee on the Bank Acts in 1857:—

"Will you refer to page 3, of the paper number 20, before the Committee; there you will find that there were in England 208 private banks of issue, and 72 joint-stock banks of issue; without any inquiry into the solvency or condition of those banks, the Act of 1844 gave them an actual monopoly of the circulation which they then had, and without taking any security whatever for the convertibility of those notes.

"It appears that there were 208 private banks in existence at the time of the Act of 1844, which continued as banks of issue, and that there are now in existence 157 of those banks; that there have ceased to issue by compounding with the Bank of England eight, and that there have ceased by failure twenty-one; and that the remainder have either ceased to carry on business, or have been joined to other banks, or are now carrying on business as non-issuing banks. So that the twenty-one private banks and the six joint-stock banks are those which have failed.

"Then if you take the circulation from the 3rd of January, 1846, when both Acts were in full operation, you will observe that the circulation of the private banks is 4,505,823*l.*, and that of the joint-stock banks 3,162,742*l.* Now, if you look at the end of the last Return, you will find that the circulation of the private banks has fallen from 4,505,823*l.* to 3,761,062*l.*, and that the circulation of the joint-stock banks remained exactly what it was, 3,159,608*l.* So that it appears that the private banks have been decaying, and going down during the whole of that time; but their place has not been filled up by joint-stock banks; whereas previously to the Act of 1844, you find that whatever the private banks lost, the joint-stock banks gained; but since 1844 it appears, that what the private banks lose, the joint-stocks do not gain.

"Prior to the Act of 1844, you will observe that the circulation of the joint-stock banks increased in proportion as that of the private banks diminished; but after 1846, when the Act limited to each bank

a specific amount of circulation, the circulation of the joint-stock banks did not increase in proportion to the decrease of private banks.

"Would not that state of the law, with respect to country banks, have a prejudicial effect in two ways upon the public? In the first place, if there was an old badly-conducted bank in any place, a good bank could not come into existence there, because, not having the right of issue, it could not compete with the bad or inferior bank, which had the right of issue. Or if there were two banks in the place, the one a decaying private bank, and the other a young energetic joint-stock bank with abundance of capital, the circulation of the declining private bank could not be supplied by the natural increase of circulation which the increasing business of the joint-stock bank would have given to it."

SECTION III.

APPLICATIONS OF REASONING WITH REGARD TO THE CIRCULATION OF BANK NOTES IN SCOTLAND.

In this section we shall notice,—First, the constitution of the banks in Scotland by whom the notes are issued. Secondly, the banking operations by which the notes are put into circulation. Thirdly, the laws which regulate the fluctuations in the amounts. Fourthly, the effects of the Act passed in 1845 for regulating the currency in Scotland.

I.—The Constitution of the Banks in Scotland that issue Notes.

1. *With the exception of one private bank in Edinburgh, all the banks in Scotland are banks of issue.*—In the year 1826, the number of issuing banks in Scotland was *thirty-two.* Now, they are only seventeen, although twelve new banks of issue have since been formed.

Number of issuing banks in 1826	32
Issuing banks since formed	12
	44
Failed, wound up, or merged in other banks . .	27
Present number of banks	17

2. *These Banks are all Joint-stock Banks.*—By a joint-stock bank we mean that there is a certain amount of paid-up capital; that this capital is contributed by a number of partners or shareholders in proportion to the shares they hold; that in case any partner retires or dies, his capital is not withdrawn, but merely transferred to another party; and that all these partners or shareholders are answerable, to the whole extent of their property, for all the debts of the bank.

3. *These Banks have numerous Partners.*—By the returns of 1826, it appears that many of the banks had only few partners, although styled joint-stock banks. But a joint-stock bank with few partners has but little better chance than a private bank of obtaining immortality. Most of these banks have ceased to exist. Of the present banks there is only one which has fewer than a hundred partners.

4. *These Banks have large paid-up Capitals.*—Of all the joint-stock banks in England, there is only one (the London and Westminster Bank) whose paid-up capital amounts to 1,000,000*l.* sterling. But among the seventeen banks of Scotland, there are six which have a paid-up capital of 1,000,000*l.*; one of 1,500,000*l.*; and one of 2,000,000*l.*: the total amount of paid-up capital is 11,701,997*l.*, making an average of 688,352*l.*

Our legislators are desirous that banks in England should have large capitals, and hence they have enacted that no new joint-stock bank shall be established with a less capital than 50,000*l.* But a bank with a large capital must have large transactions, and a large field for its operations. And if it be a sound principle that banks should have large paid-up capitals, then restrictions upon the number of partners, restrictions upon the circulation, restrictions upon branches, and restrictions upon the union of banks, are enactments pre-eminent in absurdity.

We think that the paid-up capital of a bank should bear some proportion to the amount of its liabilities. A bank having large transactions and a small capital may incur losses exceeding the amount of its capital. The total amount of paid-up capital in all the banks of Scotland, we have stated to

be 11,701,997*l.*: the amount of notes they are authorized to issue is 3,087,209*l.* The amount of their deposits was estimated by Mr. Blair, in the year 1841,* at 27,000,000*l.* So their paid-up capital is above one-third the amount of their liabilities.

5. *These Banks are few in number.*—And this, too, in a country where, until 1845, there was unlimited freedom of banking. How startling this fact must be to those who have told us, that if there were no restrictions upon the formation of joint-stock banks, they would be as numerous as gin-palaces. But history tells us that where banking is free, the banks are few; and when banks are numerous, it is the effect of legislative enactments. In England the banks are numerous, because in the renewal of the charter of the Bank of England, in 1708, it was enacted, that no other bank having more than six partners should have the privilege of issuing notes. And as banks having more than six partners could not be formed, a great number of banks, each not having more than six partners, rose into existence, as they were required by the increasing trade and wealth of the country. In the United States of America there are numerous banks; for no bank can be established without a charter; and as the state legislatures have thought proper to grant a large number of charters, of course there are numerous banks.

6. *These Banks have many Branches.*—It is undeniably true that it is better for a country to have few banks, with many branches, than a great number of small independent banks. One advantage is, that there is greater security to the currency. Where there are numerous small banks, there will be occasional, and probably numerous failures; and if their capitals are small, they will sometimes lose more than their capital, and then the holders of their notes may suffer loss. But the various branches of a bank are interlaced together; and if one branch sustains loss, the profits of the other branches are a compensation, and possibly in a few years the less fortunate branch may recover its losses. The whole capital of the bank

* See evidence before the Committee on Banks of Issue. They are now stated to be £50,000,000 (1857).

is a security to the public for the notes issued at any of the branches. Hence local losses do not affect the public. The shareholders, perchance, get a less dividend, but the bank goes on as before.

The banks of Scotland have large paid-up capitals and numerous branches. These should always go together. A bank that has numerous branches should have a large paid-up capital. A bank that has a large paid-up capital should be established in a large town or city, and extend its branches into districts too poor to form strong banking institutions for themselves. This would give the less wealthy towns and districts the conveniences and security of the large capital of the parent bank, and prevent the formation of small and feeble banks in those localities.

We may observe that the head-quarters of all the banks of Scotland are in large towns or metropolitan cities. Scotland has not been successful in preserving small local banks. Those who since 1826 have failed, have wound up, or have found it convenient to merge in larger establishments, are by no means few. Private banking, too, has been tried and found wanting. Of the private banks that existed in Edinburgh, in the year 1826, none remain.

II.—The Banking Operations by which these Notes are placed in circulation.

1. *Current Accounts.*—These are sometimes called "Running Accounts," and by the Bank of England, "Drawing Accounts."

The party having the account pays in to his credit bills, gold, or notes, and draws out the sums for which he has occasion. And as all the bankers' payments are made in his own notes, the effects are, that all the previously existing currency is displaced, and the banker's notes are substituted in its stead.

This effect is produced and maintained more rapidly and effectively by the allowance of interest on the daily balance. When we say the banks of Scotland allow interest on current accounts, we do not mean that they allow interest, as is the case with some banks in London, merely on the lowest sum that may be to the credit of the account on any one day

during the month, or during six months; they allow interest from day to day on the full amount of the daily balance. Hence it is the practice for all parties having such accounts to pay into the banks, every afternoon, all the cash they have in their possession, and to draw out on the following morning the notes for which they may have occasion. By this means they get a day's interest on the sums they have placed to their credit.

This practice is facilitated by the exemption from any charge for commission. The country banks in England charge a commission upon the amount of the debit side of a current account. Hence it is the advantage of a party who receives bank-notes to pay them away to other parties, without passing them through his banking account. In Scotland no such charge is made, and therefore the notes received are not again paid away. Indeed, a party would not be thought to use his own banker well, who should pay away the notes of another bank. He is expected to pay in such notes to his credit, and to make all his payments in the notes of the bank with which he keeps his account.

2. *Deposit Receipts.*—These deposits are usually small sums placed in the bank by parties who have generally accumulated them by their industry, and which are placed in the bank for safety and for interest. Their effect upon the currency is the same as that produced by current accounts. But the transactions are for smaller amounts, and the operations are far less frequent. Among the advantages of a sound system of banking, we ought not to overlook its influence on the humbler classes of society. Scotland has always bestowed on such classes the good effects of the savings' banks. The poor had always a place of safety in which they could deposit the fruits of their labour. And thus habits of industry, of prudence, and of forethought, were produced and maintained.

3. *Cash Credits.*—A banker is a dealer in money; he borrows of one party, and lends to another; he thus draws into active operation those small sums which were previously unproductive in the hands of private individuals, and furnishes accommodation to those who have need of additional capital to

carry on their operations. These advances are usually made in commercial towns by the discounting of bills; but in agricultural districts no bills exist. Hence the bankers, in the country parts of England, made advances to farmers and landlords upon the security of deeds. The banks of Scotland adopted a different mode, and invented cash credits. At the same time, they granted these credits only to such parties as had the means of circulating bank notes; and as small credits could circulate more notes in proportion to their amount than large ones, the credits were usually confined to from 200*l.* to 500*l.*

A cash credit is, in fact, the same thing as an overdrawn current account, except that in a current account the party overdraws on his own individual security, and in the cash credits he finds two securities, who are responsible for him. Another difference is, that he cannot overdraw his current account without permission each time from his banker, whereas the overdrawing of a cash credit account is a regular matter of business—it is, in fact, the very thing for which the cash credit has been granted. As in a current account, the party having a cash credit may pay in or draw out money, within the limits of the credit, as often as he pleases, and is charged interest from day to day on the sum overdrawn. It is obvious that the effect on the currency is the same in both cases. In the current account, the party pays in money every afternoon, in order to get as much interest as he can from the bank; and in the cash credit, he does the same, in order to pay as little interest as he can to the bank. The result is, that all superfluous notes are daily withdrawn from circulation.

4. *The System of Exchanges.*—All the banks in Scotland exchange their notes twice a week in Edinburgh, and pay the balances by exchequer bills. The Scotch bankers are loud in their praises of the system of exchanges. And justly so. But they are in error in supposing that nothing like it exists in England. Our country banks make their exchanges with each other at stated times, and pay the difference by a draft on London. These operations have the same effect as the exchanges in Scotland, of withdrawing from circulation all the

superfluous notes—that is to say, all the notes that come into the hands of the bankers. But the system in Scotland is more extended and more uniform. Most of the banks have their head offices in Edinburgh, or Glasgow, with numerous branches all over Scotland, and hence they are better able to make arrangements for a uniform system of conducting their business, both with reference to the public, and with reference to one another.

It is easy to perceive how these different arrangements dovetail into one another. The operations on the current and cash credit accounts bring out into circulation all the notes which the wants of the community require; while the allowing of interest, and the general prevalence of saving habits, bring back to the banks all the notes which are not in active operation; and by the system of exchanges, all the various notes that may be lodged in any one bank are immediately presented for payment to the respective banks by whom they were issued. For this beautiful system Scotland is indebted to the sagacity of her bankers.

III.—The Laws of the Circulation of Bank Notes in Scotland.

Annual Variation.—One law of the circulation is, that the amount *varies from year to year;* it is not every year of the same average amount.

In the year 1843 the average circulation was 2,741,841*l.*; in 1854 it was 3,789,214*l.* The fact is indisputable. The causes of this fact will admit of difference of opinion. The amount of money required in any country will depend upon the number and amount of pecuniary transactions; and these must depend upon the quantity of commodities sold, and the payments that are made. Hence generally we may state, that the amount of the circulation will be regulated by the state of commerce and agriculture.

Looking over the return from 1834 to 1855, we may trace a marked correspondence between the circulation and seasons of commercial excitement and depression in Great Britain. At the end of 1836 occurred a commercial panic; the previous

excitement had increased the circulation to an average of 3,217,887*l.*, but after the panic the average, in 1837, was only 3,074,616*l.* At the end of 1839 occurred another panic. The previous excitement had carried the average of the circulation of 1839 to 3,246,980*l.*; but it declined during the first months of 1840, though it recovered by the end of the year. In 1842 and 1843 the circulation was low. The country circulation of England was also low. When, in 1844, Sir Robert Peel wished to fix upon the average circulation of the previous two years, as the maximum of the future circulation, both the private and joint-stock banks of England resisted this on the grounds that those two years were years of depression, and a greater amount of notes would be required when trade should revive. In 1844 trade did revive; and in addition to this, the railway speculations came on in the years 1845 and 1846. The effect is seen in the increase of the average circulation of Scotland, in 1845, to 3,307,132*l.*; in 1846 to 3,439,564*l.*; and in 1847 to 3,516,450*l.* But in October, 1847, came another panic—trade was paralysed; and in 1848 and 1849 the circulation fell to 3,162,692*l.* and 3,134,073*l.* But in 1850 trade was again stimulated by the importations of gold from Australia, and the circulation rose. The average amounts in the years 1850 to 1854 were as follows:—

	£
1850	3,225,214
1851	3,242,922
1852	3,403,949
1853	3,789,214
1854	4,055,216

We consider it then a law of the currency, in Scotland, that the amount will vary annually, according to the excitements and the depressions in trade.

Variations during the same Year.—A second law of the currency in Scotland is, that the amount during each year is not uniform throughout the year, but varies from month to month.* This is obvious to inspection. But if we farther

* Since 1845 the returns have been made, not every month, but every *four weeks.* Hence we should notice the dates of the returns; for example—a return for the four weeks ending December 1st, 1849, is properly the return for November.

compare the different years with one another, we shall discover a farther law. The lowest amount of the circulation is in March, and the highest in November. The advance, however, between these two points is not uniform; for the highest of the intervening months is May or June, after which there is a slight reaction, but it increases again until November, and falls off in December. These are statistical facts, and the uniform occurrence during successive years shows the existence of a law. The causes of these facts cannot so easily be deduced from the tables, but must be gathered from testimony. From the evidence of the Scotch bankers, before the Parliamentary Committee of 1826, we learn that the cause of the great increase of notes in May and November is, that these are the seasons for making payments. The interest due on mortgages is then settled; annuities are then paid; the country people usually take their interest on their deposit receipts; and the servants receive their wages. There are frequently large sums transferred by way of mortgage. It is the custom of Scotland to settle all transactions, large as well as small, by bank notes—not by cheques on bankers as in London. It will be observed that these monthly variations occur uniformly every year; while the amounts of the circulation in the corresponding month of different years, undergo comparatively but little change. The Law of 1845 has made no change in this respect.

Variations in amount of Notes for large and small Sums.—A third law of the circulation in Scotland is, that the amount of notes in circulation under 5*l.* is greater than the amount of notes of 5*l.* and upwards.

The Bank of Scotland first issued notes of 1*l.* in the year 1704; and from that time to the present they have never been prohibited. In the year 1765 a practice prevailed in Scotland of issuing notes of a less sum than 1*l.*, and which were made payable to the bearer on demand, or payable at the option of the issuer at the end of six months, with legal interest from the demand to that time. By an Act passed in that year, all notes under 1*l.*, and all notes having this optional clause, were prohibited.

In the 'Gentleman's Magazine,' for 1765, there is a description of one of these notes; it is for one shilling Scots, which is equal to one penny English. It is drawn after the following form:—

Sh. 1 Scots. No. Edinburgh.

The *Mason Borrowmen Company* oblige themselves to pay to Solomon Hod, or bearer, *One Shilling Scots* on demand, or at the option of the Directors, one shilling Scots with the legal interest at the end of *six months*, after the day of demand; and for ascertaining the demand, and the option of the *Directors*, the accountant with one of the tellers of the company are hereby ordered to sign, the day of presenting this *Note*, on the back of the same,

By Order of the Court of Directors. W. J., *Accountant.* G. O., *Teller.*

After the panic of 1825 it was proposed by the Government to abolish all notes under 5*l.* in Scotland, as well as in England; Committees of both Houses of Parliament were appointed to report upon the subject. The evidence laid before these Committees, and probably also the letters of Sir Walter Scott, published under the name of "Malachi Malagrowther," had the effect of causing the measure to be postponed.

The greater amount of small notes arises from the greater number of small transactions. This is no proof of the poverty of Scotland, but, on the contrary, of the general diffusion of wealth. If we look to the present state of the circulation in Ireland and Scotland, we shall find that the small notes form the larger proportion, and the amount furnishes no confirmation of the doctrine, that small notes diminish in wealthy countries. Scotland is a wealthier country than Ireland, yet has a larger proportion of small notes. And the north of Ireland is wealthier than the south, yet the banks of Belfast have a larger proportion of small notes than the banks of the south. When large masses of the population are in extreme poverty, a one-pound note is a luxury they never reach.

But where a large small-note circulation exists in a country, and is maintained from year to year, it shows that the main body of the people are in that comfortable condition which requires the use of bank notes.

A fourth law of the circulation in Scotland is, that in the comparatively poor and thinly-peopled districts the proportion of small notes circulated is greater than in districts more wealthy, and more densely peopled.

Our evidence on this point is not so ample as it would be if every district in Scotland had a local bank. The banks of Edinburgh and Glasgow have branches opened in various districts; and as we have no returns of the circulation of each branch, we cannot tell the proportion of large and small notes that circulate in any one district. Out of Edinburgh and Glasgow there are local banks at Perth, Dundee, Aberdeen, and Inverness. And we find that these local banks circulate a larger amount of small notes, in proportion to the whole circulation, than is circulated by the other banks. We also find that the Western Bank of Scotland, which has a great number of branches established in thinly-peopled districts, circulates a large proportion of small notes. Generally speaking, the banks that have the greatest number of branches circulate the largest proportion of small notes. And this establishes our law; for where the branches are numerous, some, if not many of them, must be established in the rural districts.

Fifthly, We may observe, as a law of the circulation in Scotland, that the small notes in circulation do not fluctuate in exact conformity with the fluctuations in the amount of large notes.

In Ireland, when the total circulation is at the highest, the circulation of the small notes is at the highest, and higher in proportion than when the total circulation is lower. It is not so in Scotland. The highest circulation in the year 1854 was during the four weeks ending June 10th and November 25th. In these periods the small notes were also high, but not so high in proportion to the large notes as in the months ending April 15th and September 30th. The difference

between the two countries arises from this:—In Ireland, the increase in the circulation from September to January arises from the harvest; and as the produce is purchased from the farmers in small quantities, the greatest increase is in the small notes. But in Scotland, the increase of the circulation in May and November arises from large payments, such as we have mentioned; and, therefore, the greatest increase is in large notes. It is not the custom to make these payments by cheques, as in London, but in 100*l.* bank notes.

These are some of the laws of the currency in Scotland. More minute returns, or a more minute acquaintance with the operations of the banks, might possibly discover other laws. But these are sufficient to show that the circulation of notes in Scotland is not regulated, as some have supposed, by the mere caprice of the bankers, but by fixed causes connected with the economical condition of the country.

It must not be supposed that these laws of the currency are peculiar to Scotland. On the contrary, we think they exist more or less in all countries. But in Scotland they are capable of statistical demonstration. They can be more distinctly traced, inasmuch as Scotland has no gold currency; no banks with exclusive privileges; nor banks of issue whose partners are limited to six. There is no law to restrict the junction of two or more banks of issue. There is no circle drawn around Edinburgh, within which large banks of issue are not allowed to enter; but every bank may issue notes in any part of the land. Her bankers are not dealers in gold or silver bullion; nor have their notes ever been issued with any view to affect the foreign exchanges, or to promote the financial operations of the Government.

IV.—The Operations affecting the Currency by the Laws of 1845.

The Act which now regulates the issue of bank notes in Scotland is 8 and 9 Vict. c. 38, passed in the year 1845.

By this Act the power of issuing notes is confined to those banks that issued notes in the year preceding the first day of May, 1845. And the amount to which each bank may issue

is not to exceed the average amount of notes it had in circulation during the year ending the 1st of May, 1845, and the amount of gold or silver coin it may at the time have in possession at the head office or principal place of issue, in the proportion that the silver shall not be more than one-fourth the amount of the gold.

This Act was to come into operation on the 6th day of December, 1845. After which day, each banker is to make weekly returns to the Stamp Office of his notes in circulation, and of the gold and silver coin on hand; and the averages of four weeks are to be published in 'The London Gazette,' with a certificate from the commissioner as to whether the bank has held the amount of coin required by this Act.

All banks, except the Bank of Scotland, the Royal Bank of Scotland, and the British Linen Company, are required to send to the Stamp Office, between the 1st and 15th days of January inclusive, the names of all their partners, which shall be published, by the 1st day of March following, in some newspaper circulating within each town or county respectively, in which the head office or principal place of issue of such bank is situated. Bank of England notes are not to be a legal tender in Scotland.

The issue of bank notes in England is regulated by the Act of 1844. But the provisions of the two Acts differ in several respects.

The Act which limited the circulation of Scotland provided against its amount becoming reduced by allowing two or more banks to unite, and to issue notes to the amount of their united circulations. Hence, if a bank of issue has occasion to wind up its affairs, it may previously make an arrangement with some other bank of issue, and by making an agreement for some kind of union, it can transfer the amount of its circulation.* In England, on the other hand, if any bank of issue not exceeding six should increase the number of its partners beyond six, it loses its circulation. If any two banks of issue, each not exceeding six partners,

* If a bank stops payment, and winds up its affairs, it cannot then transfer its circulation.

should unite so as to increase the number of partners beyond six, both banks would lose their circulation. If any private bank should transfer its business to a joint-stock bank, the circulation would be lost. If any joint-stock bank should merge its business in another joint-stock bank, its circulation would be lost. If any two joint-stock banks of issue should unite and form a new bank, the circulation of both banks would be lost.

But the Act of 1845 not only provided for the maintenance of the circulation of Scotland, it also permitted its extension. Any bank was allowed to increase its issue beyond the certified amount, provided it held in its coffers a sum of gold equal to the amount of the excess. The Act of 1844 prohibited every English bank from issuing beyond the certified amount; and should it do so, for even a single month, it incurred a penalty equal to the amount of the excess.

The Act of 1845 has produced several practical effects in the management of the banks of Scotland. Had not the Act of 1845 been passed, it is probable that new banks of issue would have been formed in Scotland during the speculations of the year 1846; and there might have been great competition between the old and the new banks. There is now among the banks a less spirit of competition than formerly. There are fewer attempts to attract customers by the offer of increased accommodation. There is a less disposition to grant cash credits, and a less anxiety to obtain those accounts that put into circulation a large amount of notes. Some advances, too, have been made upon banking charges. The banks have attempted to reimburse themselves for the increased expense of keeping gold, by charging a commission upon the amount of the cash credits and upon payments made in London. Thus confirming the doctrine —a doctrine that statesmen are slow to learn—that restrictions upon banks are taxes on the public.

It may be asked, What is the reason that, since the year 1844, the circulation of Scotland has almost uniformly advanced, while that of the private and joint-stock banks of England has uniformly declined?

We have stated at p. 496 what we considered to be the causes of the decline in the English circulation. But these causes do not apply to Scotland. The banks of Scotland were permitted to issue beyond the certified circulation upon a deposit of gold. The introduction of the penny postage did not reduce their notes, as this was rendered unnecessary by their system of exchange. The banks had no inducement offered to them to withdraw their notes; and they had to maintain no contest with the branches of the Bank of England. The banks of Scotland too had large capitals, and were free from the contingencies attached to those English banks which had been called into existence by the iniquitous Act of 1708. To this it may be added, that the deposit system of banking with payments by cheques has not extended in Scotland as in England, since the Acts of 1844 and 1845.

In operating on his current account, it is not the general practice in Scotland for a customer to draw cheques on the bank for his individual payments, nor to accept bills payable at the bank. If he has to make twenty payments in the course of the day, he will go to the bank in the morning, and draw out in one sum a sufficient amount of notes to make all these payments. On the other hand, if a customer should receive money from twenty different people in the course of the day, he will not receive cheques, as there are none in circulation, but bank notes, which, at the close of the day, he will pay in one sum into the bank. In England, all these receipts and payments would be made in cheques, each having probably odd shillings and pence. From this cause the trouble and expense to a bank of conducting a current account is much greater in England than in Scotland.

A few years ago an attempt was made to form a bank to be called the Dunedin Bank of Scotland. One of the advantages it held out to the public was the adoption of the English system of drawing cheques for individual payments. The advantages of this system are pointed out in the prospectus, and it was proposed to charge the customers of the bank a halfpenny, or, if necessary, a penny on each cheque.

Here we find that the Scotch bankers calculated that the adoption of the English system of drawing cheques might occasion a cost to the bank of one penny a cheque. And yet, in the year 1855, it was proposed in Parliament to lay upon these cheques a charge of another penny in the form of a stamp duty. By the exertions of the London committee of deputies from the joint-stock banks, and the good sense of the Chancellor of the Exchequer, Sir G. C. Lewis, the plan was abandoned.*

In addition to these negative causes connected with the circulating notes in Scotland, there have been others of more active operation. Scotland has not only shared largely in the general prosperity of the United Kingdom, but has had local causes of prosperity arising from the immense sums expended, since the year 1845, in the construction of railways, and the great increase in the manufactures and commerce of Glasgow and its neighbourhood.

The Act of 1845 has not been successful in imparting to the people of Scotland a taste for gold. The bankers are too wise to issue the gold unless when it is demanded; and the public are too wise to make such a demand. Hence, when the increase of the currency requires a further importation, the gold is quietly brought from London to Edinburgh, is quietly locked up in the vaults of the bank, and when no longer required, is quietly sent back again. Of course this is a loss to the banks, of interest, and of the expenses of these transmissions. But in this way it is less injurious than if put into circulation. Disastrous for Scotland will be the day when the people shall become inoculated with the love of a gold currency. The effect of such a desire in England is strikingly exhibited in seasons of pressure. When such pressures occur in Scotland, the banks can employ their whole resources to assist their customers, and to support public credit. But when they occur in England, the banks have, in the first instance, to take care of themselves. The banks of issue have to find gold to meet their notes, and at

* In 1858, Mr. D'Israeli, Chancellor of the Exchequer, adopted the plan.

a time too when the gold is leaving the country, and causing a corresponding contraction of Bank of England notes.

We may observe, in conclusion, that the laws of the currency in Scotland have not been enacted by the Legislature. From 1765 to 1845, a period of eighty years, no Act of Parliament was passed for the regulation of the issue of bank notes in Scotland; and the Act of 1765 was merely to prohibit notes under 5*l.* And were an English statesman now to put to the Scotch bankers the question, once addressed by a minister of commerce to a body of French merchants, "What can I do to serve you?" they would probably make the same reply, "The greatest service you can render us is to let us alone."*

The case supposed in the last sentence has actually taken place. In the year 1857, Sir G. C. Lewis, the Chancellor of the Exchequer, wrote to the Scotch bankers, inquiring what changes they would recommend in the existing laws; and their replies were laid before the Bank Acts Committee. Their replies do not exhibit the anticipated uniformity; but few wish to be "let alone." Various suggestions are made by different banks for the modification of the existing law. Among these suggestions are:—that the total authorized amount of notes issued by all the banks shall be increased so as to correspond with the present trade and wealth of Scotland; that the proportion issued by the respective banks shall be altered and regulated by the present amount of their business transactions, and more in accordance with their paid-up capitals; that the period for taking the averages shall be extended to eight weeks, so as to meet the extraordinary payments made at certain seasons of the year; that the banks shall be permitted to hold government securities against a portion of their issue beyond the certified amount, and that the gold and silver held at the branches shall be taken into account, as well as the amount kept at the head office. Some of the banks recommend that no alteration shall be made in the law which prohibits the formation of

* 1855.

new banks of issue, while others desire that all restrictions be removed, and banking in Scotland be placed in the same condition that it was previously to the year 1844. Upon the last point we quote the petition from the merchants, manufacturers, and shipowners of Glasgow. This petition humbly showeth—

"That there are seventeen banks in Scotland, composed of 13,991 partners or shareholders, with a paid-up capital of 11,726,260*l.* sterling.

"That previous to the year 1844 the trade of banking in Scotland was free. Scotsmen, if they saw fit, were entitled to associate and carry on business as bankers, and under this freedom from legislative restrictions or control Scottish banks were secure, and the Scottish banking system was looked on as a model worthy of adoption in England and the British colonies, whilst the mercantile, manufacturing, agricultural, and industrial classes generally received monetary accommodation on moderate and reasonable terms.

"That in the twenty years betwixt 1825 and 1845, five new native joint-stock banks were established in the city of Glasgow, namely, the Union Bank, now the Union Bank of Scotland, Western Bank, Clydesdale Bank, City Bank, and Edinburgh and Glasgow Bank. But during the last twelve years, or since the enactment of the monopoly, not a single new bank has been established, although the population, trade, commerce, and shipping of the city and harbour, and demands for monetary accommodation, have increased in a much greater ratio; in fact, have been positively much greater in these twelve years than during the previous twenty.

"But what your petitioners wish more immediately to press on the attention of your Honourable House is, that the prohibition against the formation of new banks in Scotland and the law as to the reserves of gold should be repealed, or at all events revised, amended, or relaxed, to the effect of permitting the formation of new banks in Scotland, especially in the city of Glasgow and other localities where the population, trade, and commerce have increased, and in proportion to such increase; and the substitution of Government securities to be held by the banks instead of gold coins as a security for the payment or convertibility of their notes."

SECTION IV.

APPLICATIONS OF REASONING WITH REGARD TO THE CIRCULATION OF BANK NOTES IN IRELAND.

In the year 1845 an Act was passed for the regulation of bank notes in Ireland. The average amount of notes that had been in circulation during the year ending May 1, 1845 (6,354,494*l.*), was made the fixed or authorized issue. For any amount beyond its authorized issue each bank was required to hold an equal sum in gold or silver coin, the silver not to exceed one-fourth of the whole. The Act came into operation on the 6th December, 1845, and from that period each bank has made returns to the Government, stating the average amount of notes in circulation during the preceding four weeks, distinguishing the notes under 5*l.* from those of 5*l.* and upwards, and stating the amounts of gold and silver coin it held in its vaults. These returns are made by all the banks of circulation in Ireland. The Act does not restrict the amount of notes in circulation—it merely requires that, for all notes issued above a fixed amount, the banks shall hold in their vaults an equal amount of gold. Nor has this reduction been the voluntary act of the bankers. Their profits would have been greater if the circulation had been greater, but they had not the power to keep it up to the authorized amount, and, fortunately for them, the Act did not require them to do so. Nor does the amount of notes in circulation correspond with the amount of gold in the Bank of England. We have three negative laws of the currency in Ireland; namely, that the amount of notes in circulation in Ireland is not regulated by the Act of Parliament, nor by the wishes of the Irish bankers, nor by the stock of gold in the Bank of England.

As notes are issued in Ireland chiefly for the purpose of purchasing agricultural produce, it would seem to follow that the amount of notes put into circulation will be regulated

mainly by the quantity of that produce, and by the price at which it is purchased. If, then, we find that, in the years since 1845, the quantity of agricultural produce has been less, or the price at which it has been sold has been less, and especially if both these circumstances should have occurred, then have we an adequate cause for a reduction in the amount of bank notes in circulation.

The annual productiveness of the harvest would affect the amount of notes in circulation.

From the description of the harvests given in the Annual Reports of the Provincial Bank of Ireland, we learn that the years 1846 and 1848 were disastrous in regard to the produce of the harvest; and we consequently find, as we should naturally expect, a falling off in the following years in the circulation of bank notes; but the harvest of 1847 was described as "on the whole a productive one," that of 1849 as "on the whole above an average." In 1850, though the crop of wheat was inferior, "the oats and barley crops were good both in quality and quantity." Yet these productive years did not produce any corresponding advance in the circulation of bank notes. We infer, therefore, that there are other laws or circumstances by which the circulation is governed, besides the productiveness of the harvest or the land actually under cultivation.

This leads us to observe, that a bad harvest in one year may, by the distress it produces, cause a less production of commodities in several following years, and hence there may be a less demand for bank notes.

A bad harvest produces distress among the farmers, and this distress affects the amount of the circulation in two ways:—First, the farmer consumes his own produce instead of selling it, and thus requires not the use of notes. If his potatoes are destroyed, he will consume his grain. In the Provincial Bank Report of 1846, it is stated that, although the crop of oats was productive and good, a larger portion than usual of the year's crop was believed to be retained for consumption in Ireland in consequence of the apprehended deficiency in the supply of potatoes. Secondly, the distress

of the farmer diminishes the instruments of reproduction. If he has no potatoes, he can rear no pigs. An abundant crop of potatoes produces in the following year an abundant crop of pigs, but a famine of potatoes will be followed by a famine of pigs; and hence the distress of one year may have the effect upon the circulation of notes in several succeeding years. This circumstance is referred to in the Provincial Bank Report of 1850: "The extensive cultivation of the potato may be considered liable to objection, but it must be remembered that this is the foundation of one branch of the provision trade, which was in former years of great importance to Ireland; and as the stock of pigs, which was so greatly reduced after the failure of the potato crop of 1846, has been again considerably increased during the last two years, it may be hoped that, if there be a good potato crop this year, that important branch of Irish trade may be again established on its former basis."

After the failure of the potato in 1846 the exportation of swine was reduced from 480,827 in 1846, to 106,407 in 1847. The potato crop again failed in 1848. The number of swine exported in 1848 was 110,787; in 1849 it was only 68,053.

The destruction of the pigs which took place in 1846 would doubtless affect the circulation of notes in subsequent years, especially in 1847, 1848, and 1849, and probably, also, to a certain extent, in the years 1850 and 1851.

But pigs can be reproduced more rapidly than cattle, as they are more fruitful, and sooner reach maturity. The seasons of famine cause the exportation of cattle in order to obtain food, and thus the means of reproduction in future years were destroyed to a more serious extent.

The extent of the distress, and consequent destruction of the instruments of reproduction, was shown in the rapid increase of the poor-rates, and it may be remarked, that the greatest number of persons relieved was in the year 1849—the year that the notes in circulation were at their lowest point of depression.

We may also observe, that a reduction in the quantity of commodities produced may be caused by a reduction in

the number of producers, and this would occasion a less demand for bank notes.

It appears from the census of 1841 and 1851, that, between these two periods, the population has declined 1,659,330, or at the rate of 20 per cent.; and calculations have been made to show that the whole of this decrease had taken place since the year of the famine, 1846. Such a decrease, from whatever cause, must be attended with a decrease in the commodities produced and consumed by those individuals, and will consequently have occasioned a less demand for bank notes to pay for those commodities. If the land previously occupied by this departed population remain uncultivated, there is a direct decrease in the agricultural produce. Such might be the effect where the occupants died. Emigration might produce an additional effect. The emigrants, before their departure, would change all their bank notes into gold to take with them, and thus would occasion a further reduction of the circulation.

It may be presumed, therefore, that, up to the present time, there has been a large decrease in the produce of the country, and consequently in the circulation of bank notes, from the decrease in the number of its inhabitants. This decrease would probably take place chiefly by deaths in the years 1846 and 1847, and in subsequent years chiefly by emigration, A great stimulus was given to emigration in the year 1845, which has continued to the present time. We may observe, that the year of the greatest emigration, 1849, was the year of the greatest distress, and of the greatest diminution of bank notes in circulation.

This decrease of the population occurred chiefly among those who had but small holdings in land. Their removal, therefore, would affect the circulation in two ways, even supposing the land were subsequently cultivated. Those small cultivators are compelled to bring their produce to market immediately after the harvest, and hence the circulation rises in September and October. From these small holdings, too, the produce is brought to market in small quantities—"each man brings his sack of oats, or two or

three pigs, to market"—and hence the circulation thus occasioned must consist chiefly of small notes.

We may farther observe, then, the amount of notes that circulate in a country will also be affected by the quantity of commodities exported, and the quantity imported.

The season in which there is the greatest export of commodities is the season of the highest circulation. But importation withdraws the notes previously in circulation. Were a banker to advance 100*l.* to an exporter, the advance would be made in notes, which would be distributed among the farmers, and remain in circulation till the landlord called for his rent. Were a banker to advance 100*l.* to an importer, the advance must be made by a draft on England, and he would be repaid by his own notes, withdrawn from circulation in payment for the articles imported. Imports not only do not draw out any of the bankers' notes, but they, moreover, withdraw those which were previously in circulation. When a man imports, say 100*l.* worth of oats, he sells them to the dealers, and the dealers to the consumers. The consumers pay the dealers in notes, which are passed to the importer, who takes them to the bank, and gets for them a bill on London, with which he pays for the oats. The effect of diminished exports and increased imports is referred to in the Report of the Provincial Bank of Ireland, every year, from 1847 to 1851; and Mr. Murray states, in his evidence before the Committee on Commercial Distress, that not only was the amount of notes reduced, but also that of silver.

The public returns show that, after the year 1845, the exports from Ireland were largely reduced, especially in the years 1847 and 1849, and in those years, too, occurred the largest importations. These imports were paid for by the capital of the country, and in part by the money of the country.

We find that the reduction in the amount of notes in circulation in Ireland has been preceded or accompanied by a reduction in the amount of commodities produced, occasioned by a reduced productiveness in the land actually cultivated, a destruction in the instruments of reproduction

by the distress thus occasioned, a reduction in the number of producers by deaths and emigration, and the exportation of an increased portion of its capital in exchange for food. But there is another circumstance that concurs in powerfully producing the same effect—that is, the prices at which the commodities brought to market are sold.

The failure of the crops in Ireland led the late Sir Robert Peel to introduce "An Act to Amend the Laws relating to the Importation of Corn." It is 9 & 10 Vict. cap. 22, and was passed June 26, 1846. A large reduction was made in the duty immediately; and it was enacted that, after the 1st day of February, 1849, the duty on wheat, barley, oats, &c., should be only 1*s.* per quarter. And in consequence of the increased distress in Ireland, an Act was passed, in January 1847 (9 Vict. cap. 1), to suspend, until the first day of the following September, all duty on the importation of corn.

In consequence of these Acts, large importations took place, and the prices gradually declined.

Let us take up the returns, and look at any year we please, and we shall find that all the months vary from each other. Beginning at January, the amount of the circulation usually declines—slowly at first, but more rapidly in May, June, and July, until, by the end of August, we arrive at the lowest point. Then, in September, it begins to ascend, and goes on increasing till January, and then again declines till August. Now let us inquire what are the laws which regulate these monthly variations.

I stated that the annual variations were caused by variations in the quantity and price of agricultural produce. But, as no notes could be put into circulation until this produce is brought to market, the monthly circulation must depend upon the quantity of produce brought to market, within the month. Now, it has been the custom in Ireland to commence bringing the produce to market immediately after the harvest. Hence arises the increase of the notes in September, and their further increase in the following months. But, in the beginning of the year the landlords collect their rents, and receive from their tenants the notes for which this

produce has been sold; this brings the notes back to the bank, either to be placed to his credit (if he have an account there), or otherwise, in exchange for a letter of credit on Dublin, or a bill on London. The circuit of a note, then, is this:—It is obtained from the bank by a corn-merchant, who pays it to a farmer for his corn, which he ships to England. The farmer afterwards pays the note for rent to his landlord, who brings it back to the bank. Every month the bank is issuing and retiring notes, but from August to January it issues more than it retires, and hence the amount of notes in circulation increases; and from January to August it retires more notes than it issues, and hence the circulation falls.

Viewing the monthly circulation, we observe that the small notes, like the large notes, are at their lowest amount about the month of August, and at their highest amount about January. But we observe also that, from August, the small notes increase more rapidly than the large ones, and after January they decline more rapidly; so that in every year the proportion of small notes in circulation is greater in January than in August. The small notes bear a higher proportion to the large notes in the month of January than in the month of August.

For several years past the Act of 1845 has not required the Irish banks to keep any amount of gold or silver, for they have always been below the authorized circulation; but another act, passed in the year 1828, through the influence of Mr. Spring Rice—now Lord Monteagle—requires that all notes should be payable in gold on demand at the place of issue. The gold and silver kept by the banks have only been to the amount that they deemed necessary or prudent for the purposes of business.

The amount of gold necessary to be kept against any given amount of notes in circulation is purely a question of management, and depends upon a variety of circumstances. The degree of public confidence the bank may have acquired, the excitable character of the population, the state of commercial credit, the facility of obtaining supplies, and the rapidity of communication with its branches, are all to be

taken into calculation by a prudent banker. Gold can now be so readily obtained from England by means of steamboats, and distributed throughout Ireland by means of railways, that so large an amount may not be so necessary as formerly. The railways, and the electric telegraph, are useful to bankers, and present another instance of the utility of scientific discoveries to men of business.

The state and condition of the banks of Ireland are favourable to their efficiency in promoting the prosperity of the country.

The circumstances of Ireland are favourable to the further employment of capital in Ireland. The Encumbered Estates Bill has broken down large estates, and placed them in the hands of parties who are in a condition to improve them. Large land-proprietors, who are nominally in possession of great estates, which are mortgaged for more than they are worth, are not desirable customers to a bank, nor are pauper cultivators, who are always behind in their rents; but the cultivators of moderate-sized estates, which they have purchased by the results of previous industry, and who have skill and prudence to cultivate them with advantage, are parties to whom banks may advance additional capital, with advantage to themselves and to the country. This is the class that forms a "nation's pride;" and to this class the banks of Ireland may in the spirit, if not in the form of the cash-credit system, make such advances as shall produce in Ireland the same beneficial effects which that system has produced in Scotland.

Another circumstance is favourable to the advance of capital by the banks. From the extent of emigration, many instances must have occurred of small farms being united and constituting large ones. The occupiers of these large farms will be a superior class of people, and more worthy of credit and confidence. A banker may readily and prudently grant assistance to the occupier of a large farm, formed of ten small farms, though he could not prudently give assistance to any one of the ten by whom the small farms were cultivated.

The history of banking proves that it is better for a country to have a small number of large banks than a large number

of small banks. The latter case has never been a natural production, but has been the result of injudicious legislation. The banks in Ireland are sufficiently strong to command public confidence, and have the means of increasing their capital, and extending their branches. They are numerous enough to prevent monopoly, and yet few enough to be protected against the spirit of excessive competition. No new bank of issue can be formed. Though this prohibition is, as we conceive, a violation of a sound general principle, yet it is one of those practical enactments which seem to show that, in political economy, some of its general principles, or, as they are called, abstract principles, admit occasionally of beneficial exceptions. This law serves to prevent the formation of weak banks, who might inflict on the country the evils of excesssive competition; and, as in the case of the Agricultural Bank in 1836, might weaken public confidence in better establishments. A strong confidence in its banking institutions, as in Scotland, is the growth of generations, and, when justified by the character of the banks themselves, is a powerful cause of national prosperity. Banks thus situated, having no reason to be anxious about their own safety, can, in seasons of distress, employ the whole of their resources to alleviate the public calamity.

From all these circumstances, we are led to believe that we may expect in future years a high degree of prosperity in Ireland, arising from the administration of her banking institutions.*

SECTION V.

APPLICATIONS OF REASONING WITH REGARD TO THE JOINT-STOCK BANKS IN LONDON.

We are not going in this section to advance any reasonings in favour of joint-stock banking either in London or the country. We merely intend to notice those charges that were brought against the London joint-stock banks, in the year 1857 and

* 1852.

1858, by parties whose character and station entitle their opinions to respect.

I. The first in point of date is that advanced by Thomas Mathias Weguelin, Esq.

When Mr. Weguelin was the Governor of the Bank of England, he addressed a letter to Sir George Cornewall Lewis, the Chancellor of the Exchequer, in reply to the following questions:—

"1. Have you any suggestion to offer with reference to the operation of the Act of 1844?

"2. Would you recommend its renewal, as it stands, for another term?

"3. If not, what amendments to you seem advisable? Note.—I would beg of you to extend your observations to the Irish and Scotch Acts of 1845."

After answering these questions, Mr. Weguelin closes his letter with the following remarks:—

"I pass on to the question as to the proportion of reserve which the Bank should endeavour to maintain in its banking department.

"This is notoriously very much higher than any private banker deems necessary in the management of his deposits; and, according to the usual practice of the Bank, varies in times of scarcity of money from one-third to one-fourth the amount of its deposits.

"But if this be contrasted with the reserves kept, for instance, by the joint-stock banks—a new and hitherto little considered source of danger to the credit of the country will present itself. The joint-stock banks of London, judging by their published accounts, have deposits to the amount of 30,000,000*l.* Their capital is not more than 3,000,000*l.*, and they have, on an average, 31,000,000*l.* invested in one kind of security or another, leaving only 2,000,000*l.* of reserve against all this mass of liabilities.

"It is impossible to foresee the consequences of the failure of one of these large establishments; and it is a branch of the subject which, in my opinion, more pressingly requires the attention of Parliament than any alteration in the Banking Acts of 1844 and 1845."

We may remark, that Mr. Weguelin did not intend to prove by these observations that the London joint-stock banks were the cause of the recent suspension of the Act of 1844; for his letter is dated November 10, 1856, and the Act was suspended on November 12, 1857. It is also a fair inference

that Mr. Weguelin did not anticipate that any evils could arise from the prosperity of the London joint-stock banks—he was fearful of evil only from their failure. But he thinks that joint-stock banks who have 30,000,000*l.* of deposits—3,000,000*l.* of paid-up capital—who have 31,000,000*l.* invested in securities, and 2,000,000*l.* of cash in the till, must be in a state of danger, and should therefore become the subject of a parliamentary inquiry.

1. Mr. Weguelin seems to object to the nature of the securities. He states they are of "one kind or another." By these words, "one kind or another," Mr. Weguelin cannot mean that any of these securities are of a bad kind, for he states that he gets his information of the affairs of the joint-stock banks "from their published accounts." Now, none of these banks have stated "in their published accounts" that their securities are of a bad kind; therefore we may logically infer that, as far as Mr. Weguelin is informed on the subject, all the securities may be of a good kind. And if so—that is, if they are safe and convertible—the banks have ample means of repaying their deposits. But Mr. Weguelin, by these words, "one kind or another," may mean to imply that the joint-stock banks ought, in their published accounts, to give a list of the various kinds of their securities. If so, it would be fair to use the *argumentum ad hominem*, and to remind Mr. Weguelin that the published accounts of the securities of the joint-stock banks are quite as ample and as minute as those given by the Bank of England. If the directors of the Bank of England are desirous that the joint-stock banks should give a more detailed account of their securities, let them set the example, and we doubt not the joint-stock banks would readily follow it. There is another kind of *argumentum ad hominem* which does not imply that the party bringing an accusation is himself in the same condition as the party he accuses, but that he is inconsistent in bringing an accusation against one party, and not bringing a similar accusation against another party who is at least equally open to the same charge. Thus, we might ask Mr. Weguelin why he is so anxious to get minute accounts of the securities of the joint-stock banks, of which he knows some-

thing, and expresses no desire to get information respecting the securities of the private banks, of which he knows nothing. We will not anticipate the reply to this inquiry. An *argumentum ad hominem* can be fully answered only by the party to whom it is addressed.

2. Mr. Weguelin intimates that he thinks the amount of cash kept in their till by the joint-stock banks is too small in proportion to their deposits.

The joint-stock banks are often treated in this way. If the amount of cash on hand appears small, they are accused of being in a state of inability to meet the demands of their depositors; if, on the other hand, it appears large, they are said to be unable to make any profits for their shareholders. Thus they are supposed to be fixed on the horns of a dilemma. It stands thus:—

A bank must keep too large an amount of cash on hand, or too small an amount.

If it keep too large an amount, it can make no profits for its shareholders.

If it keep too small an amount, it cannot meet the demands of the public.

Therefore—a bank must always be in a condition either to make no profits, or to be unable to meet the public demands.

We have stated at page 341 that "a dilemma becomes faulty when the members of the division are not fully enumerated, for then the major is false." Such is the case with the major proposition of the above dilemma. It is not a necessity that a banker should keep an amount of cash either too large or too small. He may keep an amount neither too large nor too small;—large enough to meet the demands of his customers, and yet small enough to yield profits for the shareholders. The major proposition is therefore untrue, and consequently the whole argument falls to the ground.

Mr. Weguelin gives the name of "reserve" to the bank-notes and gold held by a banker in his till. A banker never gives them this name. He calls them cash, or cash in hand, or cash in the till. In his "reserve" he includes not merely his cash, but also all his securities that may be readily con-

verted into cash. Thus his loans demand, Exchequer Bills, India Bonds, Government Stock, and all other readily convertible securities, would form part of his "reserve."

We have stated, at page 193 of this work, the various principles by which bankers are guided in regulating the amount of cash they keep in the till. We must not reason on the assumption that the cash in the till is intended to pay off the whole or any large portion of the deposits; for though they may be all payable on demand, yet experience shows that a small portion only will be daily demanded. But the cash in the till is not intended to pay even the amount that may be daily demanded. It is intended only to pay the difference between the amount daily demanded and the fresh amount that may be daily lodged; and never does this amount at all approach the fifteenth part of the total lodgments. If on any one day the cash is unusually diminished, the banker replenishes his till either by realizing some of his securities or by ceasing for a while to make farther investments. Who ever heard of either a joint-stock or a private bank, otherwise in a sound state, that stopped payment in consequence of not having sufficient cash in the till?

3. Mr. Weguelin makes a comparison between the cash kept by the joint-stock banks and the amount kept by the Bank of England.

As a question of arithmetic, it is easy to see which amount bears the highest proportion to its deposits; but, as a question of management, the comparison is fallacious. Before two parties can be logically compared together, with the view of blaming or censuring either of them, it must be shown that their circumstances are similar, and that they equally possess the power of voluntary action. And we may ask, Can the Bank of England increase or diminish her reserve of notes as readily as a joint-stock bank? Mr. Weguelin tells us that the Bank of England has no such power. When gold is imported into the country, the cash on hand will be increased; when gold is exported, the cash on hand will be diminished; and the bank has no power to prevent the effect of this operation. Indeed, since the bank has become a bank of deposit

to the London joint-stocks, as well as the private banks who make their payments with each other at the clearing by transfers, her power in this respect is much curtailed. But the Bank attempts to regulate these fluctuations in the amount of gold by altering her rate of interest; hence the directors raise their interest, as they say, "to protect their reserve." This measure has not always been effectual. In November, 1857, though the Bank charged ten per cent., the reserve was much below the proportion mentioned by Mr. Weguelin, and the Act of 1844 was consequently suspended by the Government. These facts show that the banking department of the Bank of England and the London joint-stock banks are in dissimilar circumstances, and cannot readily be subjected to the same principles of government—so far, at least, as the regulation of the cash in their tills.

4. Mr. Weguelin, on the 10th November, 1856, informed the Chancellor of the Exchequer that he thought there was a source of danger in the state of the joint-stock banks of London, and that they, more than the Bank of England, ought to be brought before a Parliamentary Committee. How happily it occurred. The Committee appointed in the first instance to inquire into the operations of the Act of 1844 was afterwards empowered to inquire into the causes of the pressure of 1857. Mr. Weguelin was himself a member of that Committee. The London joint-stock banks were accused of being the cause, or at least one cause, of that pressure. A director of the London and Westminster Bank, and a director of the London Joint-Stock Bank, were among the witnesses. What a fine opportunity for Mr. Weguelin, by the cross-examination of these witnesses, to bring into public view the hidden danger he had denounced to the Chancellor of the Exchequer! But no,—in the meantime Mr. Weguelin had become better informed upon the subject. The pressure of November, 1857, had shown him that the joint-stock banks not only had reserves adequate to meet all the claims made upon them, but were also enabled to render important assistance to the Bank of England, and, through them, to the whole commercial community. Mr. Weguelin,

therefore, refrained from repeating a charge which had been founded only on a want of information.

II. John Twells, Esq.

On the 17th of July, 1857, Mr. John Twells, a partner in the London private bank of Messrs. Spooner, Attwoods, and Co., was examined before the Committee on the Bank Acts. In his evidence, he stated that the profits of some of the London joint-stock banks had amounted to 18 or 20 per cent. He underwent an examination as to how this was done, and various hypotheses were suggested to account for this phenomenon; but Mr. Twells declared it was a mystery he could not solve. This reminds us of the question put by King Charles the Second to the Fellows of the Royal Society—"How is it, that if a live fish be put into a vessel of water, the vessel weighs no heavier than before?" It was not the fact. Mr. Twells, and Mr. Hildyard, by whom he was examined, tried to account for what was not the fact. The joint-stock banks have never made 20 per cent. profit. It was the dividend, not the profit, that was 20 per cent. The profit was made upon the whole amount of their funds, but was divided upon their capital; and as their total funds were much larger than their capital, a small amount of profit made a large amount of dividend. For example: the only two banks that have paid a dividend so high as 20 per cent., have each a capital of 600,000*l.* The bank that paid the highest dividend, had, in January, 1858, deposits to the amount of 10,700,000*l.*, and the other, 9,600,000*l.* Supposing the capital to be invested in Government Securities at 3 per cent., and the deposits employed at a profit of about 1 per cent., this would be sufficient to make up the dividend. Where, then, is the mystery? Another joint-stock bank had deposits to the amount of 13,900,000*l.*, but it paid a lower dividend, for it had a paid-up capital of 1,000,000*l.*; a capital less in proportion to its deposits than the other two banks.

We think there is another misconception in connexion with this subject. It is a mistake to suppose that joint-stock

banks make larger profits than the private banks. It is obvious that, in relation to the funds employed, the net profits cannot be so high, as they allow interest on deposits, which the private banks generally do not. Their profits are also less when compared with their paid-up capital. The private bankers do not profess to have large capitals invested in their business; they trade upon the reputation of the partners as men of property. It has been contended on their behalf, that to carry on business with your own money is not banking. It is banking to trade with other people's money. According to our own definition (page 23), "a banker is an intermediate party between the borrower and the lender. He borrows of one party and lends to another; and the difference in the terms at which he borrows, and those at which he lends, forms the source of his profits." It is obvious that a bank may be carried on without any capital; and banks have been carried on for years after all the capital, and all the property of the partners, and half the deposits, have been irrecoverably lost. Even when the partners are all wealthy men, it is not customary to invest much of their property as capital in the bank, simply because much capital is not required. Hence the profits of the partners in a private bank are usually higher in proportion to their capital than the dividends paid to shareholders in joint-stock banks.

But here we must caution the reader against the error of supposing that in either a private or a joint-stock bank a paid-up capital is a matter of indifference. It has been said that "good management is of greater importance than paid-up capital." This is literally true; but within it lurks a fallacy of comparison. It seems almost natural to the human mind, when it compares two things and finds one greater in any respect than the other, to entertain feelings of disparagement towards that which has the quality in only an inferior degree; but we should remember that the degrees of comparison are "*good*—better—best;" not "*bad*—better—best." Hence, when we admit that "good management is of more importance than paid-up capital, it does not follow from this proposition that paid-up capital is of little importance,

or of no importance; still less that it is a clog or hindrance to the prosperity of the bank. But such a sentiment has sometimes been expressed. When the deposits of a joint-stock bank have largely increased and money is abundant, some of the shareholders have said to the directors, "You have more money than you are able to employ; give us back half our capital;" and they have fondly imagined that, reducing the capital, and increasing the *pro ratâ* amount of the dividend, would be the same thing as increasing the profits. This is the same fallacy of comparison as that to which we have already referred, and arises from confounding the ideas of profit and dividend.

III. The Speech from the Throne.

The Committee on the Bank Acts of 1844 and 1845 delivered their Report to the House of Commons on the 30th July, 1857; they state that, as the investigation of the subject referred to them is still incomplete, they recommend that a Select Committee be appointed to resume the inquiry in the ensuing session of Parliament. When the Committee delivered this Report, they little thought that, on the 12th November, about three months afterwards, the Act of 1844 would be a second time suspended. Yet such was the case; and the Parliament was specially summoned to meet on the 3rd of December, to grant a Bill of indemnity to all who were parties to that suspension. The Queen commenced her Speech with reference to this subject thus:—

"My Lords and Gentlemen,—Circumstances have recently arisen connected with the commercial interests of the country, which have induced me to call Parliament together before the usual time.

"The failure of certain joint-stock banks and of some mercantile firms, produced such an extent of distrust as led me to authorize my ministers to recommend to the Directors of the Bank of England the adoption of a course of proceeding which appeared necessary for allaying the prevalent alarm. As that course has involved a departure from the existing law, a Bill for indemnifying those who advised and those who adopted it, will be submitted for your consideration."

The "certain joint-stock banks" that had failed previous to the suspension of the Act of 1844, were the Liverpool

Borough Bank, which stopped on the 27th October; the Western Bank of Scotland, which stopped on the 9th of November, and the City of Glasgow Bank, which stopped on the 11th of November, the day before the Act was suspended. After the suspension of the Act, the Wolverhampton Banking Company stopped on the 17th of November, and the Northumberland and Durham Bank on the 25th of November. Both the City of Glasgow Bank and the Wolverhampton Bank resumed payment on the 14th of December.

It will be observed that the Royal Speech refers to those joint-stock banks which had failed previous to the suspension of the Act of 1844; it makes no reference to any which had not failed. Here, then, we have no charge to refute. With regard to those which had failed, it is said that their failure, in connection with that of some commercial houses, had produced distrust; but it is not stated what kind of distrust, nor why that distrust should warrant a suspension of the Act. One or two connecting links between the cause and the effect seemed to be required. Possibly we may be able to supply these connecting links. For some weeks previously to the suspension of the Act, it was publicly stated, that many merchants applied to the bank for an amount of discount greatly exceeding their actual wants, from a fear that a time would come when they would not be able to obtain what they might absolutely require.* Here was the distrust. It was, doubtless, true that this distrust was increased by the failures referred to in the Royal Speech.

We are thus enabled to supply the connecting links in the Royal Speech.

The failure of certain joint-stock banks and of some mercantile firms produced distrust.

This distrust caused greater demands on the Bank of England.

This increased demand exhausted the funds of the Bank of England.

This exhaustion of the funds of the Bank of England

* This statement was confirmed by evidence given before the Committee on the Bank Acts, by Mr. Neave, Governor of the Bank.

induced the Government to authorize the bank to violate the Act of 1844.

It is clear that the remedy was adapted for the removal of the disease. The bank were thus enabled to supply themselves with funds. With these funds they were enabled to meet the increased demand. By meeting the increased demand they removed the distrust. It is true that by removing the distrust, they did not resuscitate the banking and commercial establishments which had failed; but, probably, they prevented other failures, and, at all events, they prevented that farther demand to which the continuance of the distrust might have given rise. The wisdom of the measure is obvious. The Act of 1844, by limiting the means of the bank, had produced distrust, and hence, to remove the distrust, the Government sanctioned the violation of the Act, and thus supplied the bank with additional means.

This was not the first time the joint-stock banks had the honour of being mentioned in a Speech from the Throne. In the Speech delivered January 31, 1837, the Commissioners say—

"His Majesty recommends an early renewal of your inquiries into the operation of the Act permitting the establishment of joint-stock banks. The best security against the mismanagement of banking affairs must ever be found in the capacity and integrity of those who are intrusted with the administration of them, and in the caution and prudence of the public; but no legislative regulation should be omitted, which can increase and insure the stability of establishments upon which commercial credit so much depends."

This sentiment may be regarded as a truism, but it is one of considerable importance. It is useful to shareholders and to the public to be reminded that no joint-stock bank can prosper without good management. And it is useful to legislators to be reminded of the limits of legislation. The inquiry which had commenced in May, 1836, was, in compliance with the Royal Speech, continued until July, 1838; and the Committee, at the close of the session, recommended that the laws respecting joint-stock banks should be brought under early consideration.

IV. Lord Overstone.

At the meeting of Parliament on the 3rd of December, 1857, Lord Overstone made a speech in the House of Lords, from which the following is an extract:—

"The panic in the United States arose, extended to this country, and where did the malaria first strike us? 'At our ports—at Liverpool and Glasgow, where joint-stock banks soon proved the unsoundness of their position. The cause of the difficulties was to be found there; and unless some remedy could be devised for it, any attempt to deal with our monetary laws would be utterly deceptive. There had grown up in this country, and had been rapidly developed within the last ten or fifteen years, a false system of credit and of holding deposits at call carrying interest, a system which had grown to an enormous extent, and which was still growing; and if that evil was not corrected it would certainly overturn our monetary system altogether. That was not an isolated opinion of his own, for there was scarcely a man of enlarged views and experience in the city of London who did not entertain the same views. It was indispensable that the attention of Parliament should be directed to that subject. Let them look at the difficulty in which the country was placed, notwithstanding the relief supposed to be afforded by an exceptional dealing with the Act of Parliament. He did not mean to say that the Government ought not to have taken the step which they had, but he did say that if the Act had been maintained only twenty-four hours longer, the whole of the vicious system to which he had referred would have been got rid of by the crumbling to atoms of the institutions which fostered it. Irretrievable ruin would have followed, and the commercial atmosphere would have been cleared. But to prevent that, it was deemed necessary to interfere, and to suspend the operation of the Bank Act."

If the above language respecting the banks at Liverpool and Glasgow simply means that the failure of those banks proves their unsoundness, we admit its accuracy. But if it be intended to imply that the failure of one bank at Liverpool and of one or two at Glasgow proved the unsoundness of all the joint-stock banks in England and Scotland, or even of all the banks in Liverpool and Glasgow, the conclusion is obviously illogical—we cannot draw general conclusions from individual cases.

We are not sure that by "the institutions holding money at call bearing interest," Lord Overstone intends to refer

to the London joint-stock banks. We thought at first that he did so, because we had heard that some persons who professed to maintain his lordship's theory had uttered opinions somewhat similar upon the subject. But when we read that "if the Act had been maintained only twenty-four hours longer these institutions would have been crumbled into atoms," we feel assured that his lordship intended no allusion to the London joint-stock banks. The "men of enlarged views and experience in the city of London," with whom his lordship was in communication, would have prevented his falling into so grievous an error. Who are the parties referred to his lordship has not thought proper to specify, nor has he assigned any reasons for the soundness of his opinion. And as it is not our present object to inquire into the causes of the recent crisis, except so far as they are attributed to the joint-stock banks, we shall form no conjectures on the subject.

V. Sir George Cornewall Lewis, Bart.

Sir George Lewis has written an excellent book upon Logic. It is entitled "A Treatise on the Methods of Observation and Reasoning on Politics." But whatever skill any one may have in Logic, unless he have also a practical knowledge of the subject on which he reasons, he will be in danger of falling into erroneous conclusions. Such we apprehend has been the case with Sir George Lewis. As Chancellor of the Exchequer, he submitted to the House of Commons, on the 11th of December, 1857, a motion that a Select Committee on the Bank Acts should be re-appointed, and should also inquire into the causes of the recent commercial distress, and investigate how far it has been affected by the laws for issuing of bank-notes payable on demand. In this speech he made the following reference to the London joint-stock banks:—

"I would only direct the attention of the House to a fact well known to all persons who are at all acquainted with this class of subjects—viz. the great expansion which the system of holding money on call has received within the last few years. It is undoubtedly, to a great extent,

to the abuse of that system—which I believe is in the main a wholesome and beneficial system, tending to collect together and to turn to good account the scattered resources of the country, but, nevertheless, eminently liable to abuse, and containing within it elements of danger—that many of the evils of the recent crisis may be attributed. It is the system of giving interest upon bankers' deposits—formerly almost unknown in this country, but for many years practised to a great extent in Scotland—which has made a great practical change in the working of our banking laws. Every one must see that there is a great difference between deposits placed with a banker for the sake of safe custody and the convenience of drawing—where the depositor keeps only the smallest sum which is sufficient for ordinary payments, and where he draws it out in small sums, as was formerly the case in England,—and the deposits which are almost in the nature of investments, where the depositor receives a high rate of interest, where he seeks to augment instead of to diminish them, and where (particularly if he is a banker) he has occasion to draw out large sums at the shortest possible notice. The difference between the two is manifestly great, and it is not dependent on the law, but it has a great effect on our banking system. With reference to this subject, I will take the liberty of directing the attention of the House to a passage in a letter from Mr. Cotton, addressed to me in October, 1856—more than a year ago—which is printed in the appendix to the report of the Bank Committee, and which I think shows some foresight as to the operation of this system. Mr. Cotton says—

"'The system of banking in Scotland which has lately been introduced into London—viz., to allow interest on deposits at call, or on short notice—has given, and will give, rise to serious inconvenience, as the depositors, in the event of a monetary crisis, will demand payment when they would not sell their own securities.'

"This I think shows a foresight and a consciousness on the part of Mr. Cotton of what was likely to be the effect of this system."

Sir George has referred to accounts, on which no interest is allowed. The London private bankers allow no interest on the sums lodged in their hands. These accounts are called current accounts. By far the majority of the merchants and public companies of London keep their accounts with the private bankers, and it is a mistake to suppose that their balances are, either individually or collectively, of very small amount. Had Sir George inquired of Mr. George Carr Glyn or of Mr. Martin Tucker Smith, both of whom were members of the Bank Acts Committee, he might have obtained better information on the subject. They would not have told him

that all their customers kept only "the smallest sum which was sufficient for ordinary payments." In fact, bankers will not retain accounts that do not keep what is deemed a sufficient balance. If the party requires discount, he is expected to keep a still larger balance, and most mercantile houses of any standing, and also many wealthy individuals, make it a point to keep what they deem a respectable balance. All these balances are payable on demand, and so are the balances of the drawing accounts in the Bank of England. If, then, it be an evil that bankers should receive money returnable on demand, it is an evil not confined to sums lodged on interest with the joint-stock banks.

Sir George has referred to the practice of banks in Scotland with regard to deposits. We have described their practice in our Practical Treatise on Banking :—

"Those regulations which the banks have established as the rule of their transactions between themselves and the depositors are the following:—The depositor may place in the bank any amount of money he pleases above 10*l*. The whole or any part of the deposit may be withdrawn at the pleasure of the depositor without previous notice. Interest is allowed on the deposit from the day it is lodged in the bank until the day it is drawn out. The balance of a current account is allowed interest at the same rate as though it were a permanent deposit.

"The following are the advantages ascribed to the deposit system :— 1. It is advantageous to the lower classes—in providing a place of safety for their deposits—in granting them interest on their savings—in encouraging habits of frugality—and thus often enabling them to advance in society. 2. It is advantageous to capitalists in furnishing them with a secure mode of employment of capital, either for a longer or a shorter period, at their pleasure. 3. It is advantageous to the country—by augmenting the amount of national capital—by increasing the demand for labour—by granting facilities to trade and commerce—and by removing the temptations to engage in hazardous speculations and foreign investments. 4. It is advantageous to the banks—by inducing every person to deposit his money in a bank—by furnishing the banks with capital to carry on their business—and by putting in circulation a large amount of their notes." *

When Sir George says this practice was formerly unknown

* These propositions are confirmed by quotations from the evidence given by the Scotch bankers before the Parliamentary Committees of 1826.

in *this country*, he must mean unknown in London. It has always been well known to our country bankers, who have allowed interest, not only on deposits, but also on current accounts, and have charged commission on the amount of their transactions. The private bankers of London have, however, kept to the system of allowing no interest and charging no commission. They depart from this practice only in the case of the accounts of their country banks, to whom they allow interest. But Sir George is under a mistake if he supposes that the deposit system, introduced into London by the joint-stock banks, has effected any change in the previous system. It is not a change, but an addition. All the joint-stock banks who take deposit accounts on interest take also current accounts in the same way as the private banks. Both kinds of deposits have the same effect—"they collect together and turn to good account the scattered resources" of the community.

Sir George has an impression that the deposits lodged at interest with the London joint-stock banks, are of the nature of permanent investments, and bear a high rate of interest. It has been the practice in Scotland for people to lodge money in the banks, and live upon the interest; but in England, people who have spare money usually invest it in the funds. In London the permanency bank deposits depends very much upon the rate and the permanency of the interest. The London joint-stock banks do not allow a fixed rate of interest; the rate fluctuates with the value of money, and for several years past it has been one per cent. less than the minimum rate of discount charged by the Bank of England. It has been found hitherto, that when the rate has advanced the deposits have increased, and when the rate has declined the deposits have diminished. A high or a low rate of interest is merely an accidental attribute of the deposit system.

After having said that the system of holding money at call upon interest has received great expansion within the last few years, Sir George states his opinion that it is to the abuse of this system that many of the evils of the recent

crisis may be attributed. But he has not mentioned the special abuses to which he refers, nor described their operation in producing the crisis. The only argument he advances is a quotation from a letter addressed to himself, on the 4th October, 1856, by Mr. Cotton, a Director of the Bank of England, and this opinion of Mr. Cotton, if correct, refutes the statement it is advanced to prove; for if it be true that the deposits lodged with the joint-stock banks upon interest are withdrawn during a crisis, they cannot be withdrawn until after the commencement of the crisis, and, in that case, their withdrawal cannot have been the cause of the crisis.

But granting that sums lodged at interest are withdrawn largely during the crisis, where is the evil if the banks are prepared to pay them? In all times of pressure bankers are called upon to repay some of the money lodged in their hands. But we have no evidence to prove that sums lodged at interest with the joint-stock banks are demanded either more suddenly, or in larger amounts, than the balances of current accounts which bear no interest. If, as Sir George states, these deposits partake of the nature of investments, the less likely they are to be suddenly withdrawn. The pressure of November, 1857, is the only one which has occurred since the deposits of the London joint-stock banks have advanced to a considerable amount. Those banks are the only parties who can give us any information on the subject—they have not given us this information, and if they had, we could not make any comparison with the amounts withdrawn from the private banks. The most probable opinion is, that during the crisis the deposit receipts at interest were not withdrawn in so large a proportion as the balances of the current accounts; but, at the close of the pressure, when the public securities were low and the banks reduced their interest gradually from eight to two per cent., as the Bank of England reduced her minimum from ten to three per cent., then these deposits were quietly withdrawn for investment elsewhere, and the balances of current accounts, as money became abundant and cheap, were proportionably augmented. The gradual rise of the funds, the accounts

since published by the joint-stock banks, and the proceedings at their public meetings seem, as far as they go, to countenance this opinion.

VI. The Bankers' Magazine.

In the Bankers' Magazine for January, 1858, we read as follows:—

"The same high financial authority charges the practice of late years by most of the joint-stock banks—a practice borrowed from the Scotch system of banking—of allowing interest on deposits at call or on short notice, with having sensibly added to the embarrassment. Possibly this is a complaint not altogether without foundation. It is clear that no banking company can allow high interest on deposits without lending the money out at still higher interest, and, as a general rule, to do that they must invest it in securities that are not immediately available; the consequence is, that unless a reserve is maintained large enough to tell seriously upon divisible profits, a rush on the part of the depositors might necessitate such an inroad upon the funds available for the current every-day business, as to compel the establishment to close its doors."

Whatever authority Sir G. C. Lewis (the high financial authority above referred to) may possess on a question of ways and means, we should consider the Scotch banks a higher authority upon the question of allowing interest on deposits. But we discard all authority on questions that admit of logical investigation. Every writer on banking must take upon himself the responsibility of proving the soundness of his own opinions. The sentiments we have quoted must be tested by practical experience and correct reasoning. The writer observes:—

"It is clear that no banking company can allow high interest on deposits without lending the money out at still higher interest."

Very clear, whether the interest be high or low. But this writer is mistaken if he supposes that banking companies first fix the rate of interest they will allow on deposits, and then look about for investments that will yield a higher interest. On the contrary, they first ascertain what interest can be

obtained on good banking securities, and then determine what proportion of that rate should be allowed to depositors. In the case under consideration the London joint-stock banks allowed on deposits one per cent. less than the *minimum* rate of discount charged by the Bank of England. Before they advanced the interest to a high rate they knew that the deposits could be employed at a higher rate, and knew also that they could be employed immediately, for it was the increasing demand for discounts that induced the Bank to advance the rate.

"And, as a general rule, to do that they must invest it in securities that are not immediately available."

It is useless to discuss the soundness of any general rule unless it be applicable to the case under consideration. The article on which we are commenting is headed, "The Commercial Crisis, 1857." In that year the rule acted upon by the joint-stock banks was the reverse of this, and necessarily so. The *must* was on the other side. To make a profit on their deposits, they were compelled to invest in bills of exchange, loans on stock or other short and convertible securities. For when the Bank of England advanced her rate of discount, the rate of interest yielded by inconvertible securities did not rise to the same rate. At the time when ten per cent. could be obtained on the discount of first-class commercial bills, mortgages or railway debentures having three or four years to run could not be readily obtained at five per cent.

The cases in which a banker may be tempted by a higher rate of interest to lock up his funds in convertible securities occur not when the rate of interest is high, but when it is low. When the minimum rate of the Bank is two per cent., as it was in 1852, and the market rate of discount is still less, then railway debentures having a few years to run may occasionally be taken at an interest of three per cent. But when the Bank rate is high, and interest on deposits is consequently high, there is always a good demand for discounts even at the high rate.

"The consequence is, that unless a reserve is maintained large enough to tell seriously upon divisible profits, a rush on the part of the depositors might necessitate such an inroad upon the funds available for the current every-day business, as to compel the establishment to close its doors."

Here we have the same *dilemma* which we have noticed elsewhere. The argument assumes that a banker must either keep too much money in his till or too little. He is not compelled to do either. There is a third course open to him. The dilemma is defective in enumeration, and falls to the ground.

With reference to a high rate of interest, this dilemma may fairly be retorted thus:—

"Every bank that allows too high a rate of interest must either maintain an insufficient amount of money in the till or make small profits.

"It is proved by their last reports that in 1857 the joint-stock banks of London did not keep an insufficient amount of money in their tills nor make small profits.

"Therefore in the year 1857 the joint-stock banks of London did not allow too high a rate of interest."*

VII. Report from the Select Committee of the House of Commons on the Bank Acts (1858).

We shall notice only those portions of this Report that have a reference to the London joint-stock banks.

The Report states that since 1847 three most important circumstances have arisen affecting the question referred to

* In the same paper we read:—

"For many and obvious reasons, a change which would establish a uniform paper currency for England, Scotland, and Ireland, and place the responsibility of note issues in the hands of one establishment, would conduce to the public convenience and advantage."

At a General Meeting of Deputies from the joint-stock banks, held in the year 1840, it was resolved:—"That the present mode of conducting the circulation of the country by means of numerous issuers controlled by an effective system of local exchanges, is well adapted to the state of the community, and powerfully promotes the agriculture, trade, mining, and general industry of the nation, and that equal advantages could not be obtained by one bank of issue."

the Committee: 1. An unprecedented extension of our foreign trade; 2. An importation of gold and silver on a scale unknown in history since the period which immediately succeeded the first discovery of America; and, 3. A most remarkable development of the economy afforded by the practice of banking for the use and distribution of capital.

With regard to the last subject we quote the following:—

"While this expansion of trade was in progress, and the precious metals received this remarkable addition, a new feature in the banking business of the country was observable. The joint-stock banks in London entered more and more into competition with the private banks, and by their practice of allowing interest on deposits began to accumulate vast amounts. On the 8th June, 1854, the private bankers of London admitted the joint-stock banks to the arrangements of the clearing-house, and shortly afterwards the final clearing was adjusted in the Bank of England. The daily clearances are now effected by transfers in the accounts which the several banks keep in that establishment. In consequence of the adoption of this system, the large notes which the bankers formerly employed for the purpose of adjusting their accounts are no longer necessary. The diminution in the use of these notes is shown by the following figures:

Bank Notes of 200*l.* to 1,000*l.*:

1852	£5,856,000
1857	£3,241,000

Meanwhile the joint-stock banks of London, now nine in number, have increased their deposits from 8,850,774*l.* in 1847 to 43,100,724*l.* in 1857, as shown in their published accounts. The evidence given to your Committee leads to the inference that of this vast amount, a large part has been derived from sources not heretofore made available for this purpose; and that the practice of opening accounts and depositing money with bankers has extended to numerous classes who did not formerly employ their capital in that way. It is stated by Mr. Rodwell, the chairman of the Association of Private Country Bankers, and delegated by them to give evidence to your Committee, that in the neighbourhood of Ipswich this practice has lately increased fourfold among the farmers and shopkeepers of that district; that almost every farmer, even those paying only 50*l.* per annum rent, now keep deposits with bankers. The aggregate of these deposits of course finds its way to the employments of trade, and especially gravitates to London, the centre of commercial activity, where it is employed first in the discount of bills, or in other advances to the customers of the London bankers. That large portion, however, for which the bankers themselves have no immediate demand, passes into the hands of the bill-brokers, who give

to the banker in return commercial bills already discounted by them for persons in London and in different parts of the country, as a security for the sum advanced by the banker. The bill-broker is responsible to the banker for payment of this money at call; and such is the magnitude of these transactions, that Mr. Neave, the present Governor of the Bank, stated in evidence, 'We know that one broker had 5 millions, and we were led to believe that another had between 8 and 10 millions; there was one with 4, another with 3½, and a third above 8. I speak of deposits with the brokers.'"

Upon this quotation we will make a few remarks:—

1. "The joint-stocks of London entered more and more into competition with the private banks."

Private banks.—This is almost the only instance in which the committee make any separate mention of the private banks. In a few instances we meet with notices of "London bankers," but in these cases the phrase includes, we presume, both the private and the joint-stock banks of London. Of the private banks of London they give us but slender information. With a little inquiry they might have ascertained that these banks were sixty in number, of whom twenty-five were members of the Clearing-house—that all these banks open current accounts with their customers, and that the balances of these accounts are all payable on demand—that by far the majority of the wealthy merchants and public companies in the City, and by far the majority of the aristocracy at the West-end, keep their accounts with the private banks—that the greater part of the country private and joint-stock banks in England, and nearly all the banks in Scotland and Ireland, keep their London accounts with the private bankers. If, then, this Committee, in noticing the prosperity of the joint-stock banks, intended to disparage the private banks, they must, we think, have proceeded on imperfect information.

The joint-stock banks of London.—When these banks stated in their published accounts that their "deposits" in June 1857 amounted to 43,100,724*l.* they did not mean that this amount was all lodged upon interest. It included the balances of all their "current accounts" and their "deposit receipts;"

all the deposits which received interest, and all which did not receive interest. What proportion bore interest we do not know, as none of the banks have given us any information on the subject. Nor do we know whether this amount, held by nine London joint-stock banks, is more or less than the total deposits held by the sixty private London banks. The Report states that a large part of the sums lodged with the joint-stock banks have been derived from new sources; if so, it would appear that notwithstanding all their competition, the joint-stock banks have not taken many deposits from the private bankers.

Competition.—When it is said that the joint-stock banks entered more and more into competition with the private banks, it can mean only that the joint-stock banks advanced their interest on deposits as the Bank of England advanced their rate of discount. Their admission into the clearing house in 1854 is a proof that the good feeling between these two classes of banks had advanced during this period. By this event, and by the new mode of adjusting the clearing, the Bank of England, the joint-stock banks, and the private banks became in a manner united. This was always the wish of the joint-stock banks. When the first bank was formed in the year 1834, they applied for permission to open an account with the Bank of England, and for admission into the clearing-house. They were permitted to open an account with the Bank of England in the year 1842, and were admitted into the clearing-house, as above stated, in the year 1854.

2. The extension of the Deposit System of Banking.

Mr. Rodwell gave evidence to show that the deposit system of banking has extended throughout the country. This, we believe, was owing mainly to the increase of joint-stock banks in the year 1836. But the private bankers shared in the benefits of the system. The Report is wrong, however, in supposing that the effect is merely to collect deposits: another effect is to create means for their employment. The country banker employs his deposits first in his own district. But

bank in agricultural districts have more funds than they have the means of employing, and they send the surplus to London. On the other hand, banks in manufacturing districts can employ more funds than they possess, and they get additional funds by sending their bills to London for rediscount.

We have on several occasions called the public attention to the extension of the deposit system of banking. This was one of the causes we assigned for the reduction of the country circulation from 11,715,527*l.* in 1839 to 7,667,916*l.* in 1843. We stated:—

"The practice of keeping banking accounts has extended very much of late years. Instead of carrying notes in their pockets as formerly, people now lodge the notes with their banker, and make their payments by giving cheques on the bank."—*Practical Treatise.*

We assigned this, too, as one reason why greater inconvenience had not been felt by the restrictions placed on the circulation of the country banks by the Act of 1844:—

"At the same time we believe that much of the restriction that would otherwise have been felt, has been prevented by a cause to which we have already referred, the extension of the Deposit System of Banking. Formerly, to keep a banker was the privilege of a few; now it is the practice of the many. It is easy to perceive how this operates. If all the notes in a town are lodged with the bankers and the depositors make their payments by cheques, notes are not required; the payment is made by a transfer from one account to another. If the two parties keep accounts with different bankers, the effect is the same. For the country bankers make their exchanges with each other daily or weekly, and pay the difference by an order on their London agent. This order is again passed through the clearing, and the differences between the clearing bankers are paid by a draft on the Bank of England. It is thus theoretically possible that all the monetary transactions of a country may be settled by a system of transfers; and it is practically the fact, that a large proportion of them are so settled; and this amount has, of late years, largely increased, and is still increasing. We have no published accounts of the amount of deposits in the country banks, but we have of the joint-stock banks of London.* The oldest of these banks has been established only twenty years, yet their united deposits in London are now above 22,000,000*l.*, while, during the same period, the private

* This was written in 1854.

deposits of the Bank of England have increased from 5,000,000*l.* to 12,000,000*l.* It cannot be supposed that all these deposits have been withdrawn from the private bankers. These large deposits are owing, I think, to the greater number of persons who now keep accounts with bankers, increased, no doubt, in recent years, by the increasing wealth and prosperity of the country; and though I have not the returns necessary to prove it statistically, I believe that similar operations are taking place throughout the country; and that the prosperity of joint-stock banks has not in this respect caused any corresponding decline among the private banks."—*Ibid.*

The London Committee of Deputies from the Joint-stock Banks passed in the year 1855 the following resolutions:—

"1. That the Deposit System of Banking, which enables individuals to place money in banks and to make all their payments by cheques, is beneficial to the depositors themselves, to the banks, and to the community at large.

"2. That the introduction of joint-stock banks has greatly extended this system, and brought its advantages within the reach of the less wealthy classes of society."

The statement, therefore, that the deposit system of banking has extended very much throughout the country, and that the extension is mainly caused by the joint-stock banks, is no new discovery; but it would have been a new discovery if the Committee had shown that this system was very injurious to the country when the banks allowed interest on the deposits, but was very beneficial when they allowed none.

The Committee have gone for their illustration into the country; but it is a mistake to suppose that this system has prevailed throughout the country, but not in an equal proportion in London. It was to extend this system that the first London joint-stock bank was established. In proof of this, we may refer to the extract we have made from our "Practical Treatise," at page 184 of the present work.

The Committee are also under a mistake in supposing that the money remitted from the country "is employed first in the discount of bills or in other advances to the customers of the London bankers." The London bankers are not dependent on their country connections for any portion of the funds with which they discount for their London customers. It is

not the practice of the London bankers to make separate investments of the different classes of their deposits; but we apprehend that there is no London bank whose deposits from its London customers only are not higher than the amount of its discounts.

3. The amount of deposits in the hands of the bill-brokers.

We are at a loss to know from the language employed whether the amounts stated denote the whole amount in the hands of the bill-brokers, or merely the amounts placed there by "the London bankers;" and we are also at a loss to know whether by "the London bankers" the Committee mean only the private bankers of London, or include with them the London joint-stock banks. We are further at a loss to know whether, in the quotation from Mr. Neave's evidence, he intended to speak of five bill-brokers or only of three.

On referring to Mr. Neave's evidence, we find that, in reply to question 402, he states the total amount of the deposits in the hands of three bill-brokers, without any reference to their connection with the London bankers. His words are these:—"I have no means of speaking decidedly, but we know that one broker had 4,000,000*l.*, another 3,500,000*l.*, and a third we supposed to have above 8,000,000*l.* I speak of deposits with the brokers."

It is a mistake to suppose that the country bankers who send money to London send it all to their "London bankers." Many country private and joint-stock banks have direct accounts also with the London bill-brokers, and they feed their banking account as may be necessary by transfers from their account with the bill-brokers. In London it is not the practice of any banks to grant discount accounts to parties who have not current accounts. Their surplus funds, so far as they are employed in discounting bills, are usually employed with the bill-brokers. But it is a mistake to suppose that these funds are all lodged on deposit. The joint-stock banks discount for the bill-brokers as they do for merchants; taking the bills into their own possession, and returning them to the brokers only in case they should not be paid. They do this

because the brokers' rate of discount is higher than their rate of interest on deposits, and because the joint-stock banks give to the public the same rate of interest on deposits which they get from the brokers. But still it serves their purpose to keep a portion on call with the brokers, as they can then keep a smaller amount in their till. To a certain extent, and in ordinary times, the money at call with the brokers is the same as money in the till, bearing interest.

Mr. Neave states that there are three bill-brokers who held deposits to the extent of 8,000,000*l.*, 4,000,000*l.*, and 3,500,000*l.* The only three bill-brokers in London who have ever received deposits to any large amount are Messrs. Overend and Co., Messrs. Alexander and Co., and Messrs. Sanderson and Co. We are at no loss to know "the principal house," for though the name is not mentioned in the Report nor in the evidence, yet in the Index we read thus :—

"*Overend, Gurney, and Co.*—Reference to an application on the 28th Oct. from Messrs. Overend, Gurney, and Co., for an assurance that the Bank would give them any loans they might require.—*Neave,* 29, 374." "Reference to the advance of not less than 700,000*l.* to Overend, Gurney, and Co. on the 12th November.—*Neave,* 661-663."

Again, the Report states—

"On the 11th November, Sanderson and Co., the large bill-brokers, stopped payment. Their deposits were supposed to be 3,500,000*l.*"

This seems sufficient evidence that the third bill-broker was the house of Messrs. Sanderson and Co.

Having now two names out of the three, we can, by an easy logical process, infer who is the third. The names and amounts of deposits will then stand thus :—

Messrs. Overend, Gurney, and Co. . . .	£8,000,000
Messrs. Alexander and Co.	4,000,000
Messrs. Sanderson and Co.	3,500,000
	£15,500,000

We now proceed to some further quotations from the Report.

After relating the suspension of cash payments by the banks in America, the Report states:—

"Great alarm naturally prevailed in London, the centre of all the monetary transactions in the world. Vast sums deposited with the joint-stock banks, at interest, and employed directly by themselves, or by the bill-brokers, in addition to other monies deposited by their other customers, were chiefly held at call; and the bill-brokers are stated to have carried on their enormous transactions without any cash reserve; relying on the run off their bills falling due, or in extremity, on the power of obtaining advances from the Bank of England on the security of bills under discount. The inevitable result of this system, at a time of commercial pressure and alarm, was, that the banks limited their discounts almost exclusively to their own customers, and began to add to their reserves both in their own tills and at the Bank of England."

Here we read only of the joint-stock banks and the bill-brokers. No one would suppose there were any other banks in London; or if there were, they would be led to infer that these banks did not hold any money at call, and that they had no money in the hands of the bill-brokers, and that during the crisis they did not add to their reserves either in their own tills or at the Bank of England.

But further on the scene is again changed, and instead of "Joint-stock Banks" we read "the London Bankers."

"It is interesting to observe, with regard to the private deposits, that the causes to which your Committee have above referred, as affecting other bankers, tend to increase the balances in the Bank of England, the bank of last resort at a time of panic. Thus, for example, the deposits of the London bankers, which in ordinary times average about 3,000,000*l.*, continued to rise during the commercial pressure, and amounted on the 12th November to 5,458,000*l.*"

As the Committee had begun the paragraph with reference to the joint-stock banks and their "vast sums" at call, we should have expected that they would have given us the amount of their deposits in the Bank of England separately, and not the total deposits of all the "London bankers.' We might also have expected the highest amount during the crisis, and not merely the amount on the 12th November. The deposits from the London bankers continued

to increase, and on the 30th December they amounted to 6,373,000*l.**

Then follows another disparaging statement respecting the bill-brokers :—

"The bill-brokers were compelled to resort to that establishment for assistance; and that to so great an extent, that the principal house went to the bank to ask whether they could obtain discount to an indefinite amount, and actually received, on one day, the day on which the Treasury Letter was issued, no less a sum than 700,000*l.* Two discount houses failed. Speaking of the general discount market, the governor of the bank stated: 'Discounts almost entirely ceased in London, except at the Bank of England.'"

In these three extracts, which are all taken from one paragraph, we have an account of the operations of the joint-stock banks, the London bankers, and the bill-brokers in a season of pressure. We have described such a season in our "Practical Treatise:"—

"As the pressure advances, he will find that there are three demands upon his funds. First, his customers will reduce their balances, and keep less money in his hands. Money lodged at interest will be taken away, because the parties can make higher interest elsewhere, or they will be tempted by the low price of stock to invest it in government securities. Secondly, he will have a greater demand for loans and discounts, not merely from weak people whom he might not care about refusing, but from persons of known wealth, whom it is his interest and his inclination to oblige. Thirdly, he will think it prudent to guard against sudden demands by keeping a larger amount of bank notes in his till. To meet all these demands he will be compelled to realize some of his securities, and he will realize those first on which he will sustain no loss."

Banks that under circumstances such as these can supply the increased wants of their customers, and yet add to their reserves both in their own tills and in the Bank of England, must previously have been well managed. If this be the inevitable result of the system of joint-stock banking, it proves the system to be a good one. And the greater the sums deposited with the joint-stock banks, the more strikingly

* The first suspension of the Act of 1844 took place on Monday, the 25th October, 1847. On the previous Saturday the bankers' deposits in the Bank of England were 1,615,000*l.* The highest amount during the rest of the year was on the 11th December, when they were 2,112,000*l.*

apparent is the advantage of the system. But if the Committee intended to pay a compliment to the joint-stock banks, we do not think it is deserved exclusively, for we doubt not that the other "London bankers" managed their banks with equal prudence. If, on the other hand, the Committee intended to cast a reflection on "the system," we would thank them to teach us another system, which, either to the banks, to their customers, or to the Bank of England, would be attended with better results.

We shall now make some further observations upon our last three extracts from the Report.

1. The London Joint-stock Banks.

The Committee repeatedly refer to the "vast amounts" deposited with the joint-stock banks. Whether these sums are vast as compared with the deposits in the private banks we do not know; but they seem "vast" enough to have excited the displeasure of the Committee. It seems to be the prosperity of the joint-stock banks which constitutes their crime. It is the extent to which they have obtained the public confidence that is the chief accusation against them. The Committee state that these vast sums were obtained through the practice of allowing interest. This shows that the practice was agreeable and useful to the public, and their half-yearly reports show it was profitable to the banks.

The Committee nowhere state that the rate of interest was regulated by the rate of discount charged by the Bank of England; a fact of considerable importance in our consideration of this subject. The amount of their deposits in 1847 was 8,850,774*l.*, and in 1857, 43,100,724*l.* If we divide these ten years into two periods of five years each, we shall find that on the 31st December, 1852, the deposits amounted only to 17,687,430*l.*, and the remainder of the advance took place in the second period. These two periods are remarkable. In July, 1852, the Report states, the bullion amounted to 22,232,000*l.*, the notes in the hands of the public amounted to 23,380,000*l.*, the bank reserve was twelve and a half millions, and the minimum rate of discount was two per cent.

"The consequence of such a state of things," says the Report, "was manifested in the year 1853, when the exports, which in 1852 had amounted to 78,076,000*l.*, rose to 98,933,000*l.* The bullion at the same time declined, and was, on the 22nd October of that year, 14,358,000*l.*, while the reserve went down to 5,604,000*l.*, and the minimum rate of interest rose to five per cent." Here we find that, in conformity with all previous experience, the abundance and cheapness of money which prevailed in the first period gave rise to general speculation. The result was evident in raising the rate of interest. The bank rate advanced from two per cent. in 1852 to ten per cent. in 1857, and the joint-stock banks, following her footsteps, advanced their interest from one per cent. to eight. And it is natural to believe that during the latter portion of this period the high rate of interest induced some of the customers of the Bank of England, the private banks, and the joint-stock and private banks in the country, to transfer a portion of their balances, and to place them on deposit with the London joint-stock banks.

This statement not only explains the cause of the "vast sums deposited with the joint-stock banks," but places in their true light the opinions of those witnesses who fancied that these large deposits were the cause of the commercial speculations which prevailed from 1853 to 1857. In point of time, a cause must precede its effect. Judging by this criterion, what should we think of the following reasoning?—

"The commercial speculation, which commenced in 1853, gave rise to a large number of bills of exchange.

"After these bills had increased to an inconvenient amount, the Bank of England advanced her rate of discount.

"After the Bank had advanced her rate of discount, the London joint-stock banks advanced their rate of interest on deposits.

"After the joint-stock banks had advanced their rate of interest, a great increase took place in the amount of their deposits.

"THEREFORE, the vast amount of deposits thus obtained was the cause of all the previous commercial speculation."

It is then said that these vast deposits are all "on call." This might be an objection if deposits lodged at interest were more liable to inconvenient calls than the balances of current accounts which bear no interest. But the experience of all practical bankers goes the other way. In general the payments and receipts will about balance each other every day. But the amount of these daily operations will be very far inferior to the same operations on an equal amount lodged on current accounts. This is the reason assigned by some banks for allowing interest on deposits and none on current accounts. Another objection to giving three or seven days' notice is the trouble it occasions. A depositor must go to the bank and give notice, which notice must be registered; when the notice is expired he must go again to receive the money. If he can assign any reason he may perhaps receive it on demand as a favour from the manager, but it is not pleasant to make the request. But suppose a pressure should arrive, and we have what is called a run upon the bank? Would it not be better to take a seven or a three days' notice, and tell the depositor to call again? A banker who should do this would necessarily increase the excitement. Every banker conversant with runs knows the best way is to pay the applicants as quickly as possible. We have known a run occasioned even in England by a manager insisting most justly upon the notice due on a deposit receipt. We may add that deposits being on demand necessitates short or convertible investments. The following quotation is from the evidence of Mr. Alderman Salomons:—

"We all hold our deposits at call, and we differ in that respect from all the other joint-stock banks. We find from experience that there is a constant circulation of persons every day,—some bringing in money, and others taking it away; therefore it is unnecessary to require any notice whatever. Practically we should only desire notice in difficult times, and that would be just the period when probably people would be disinclined to give us the benefit of it. Therefore we profess to hold all our deposits at call."

The Report intimates that the London joint-stock banks

had at the time of the pressure "vast sums" lodged at call with the bill-brokers. Mr. Alderman Salomons delivered to the Committee a statement of the affairs of the London and Westminster Bank as they stood on the 11th of November, 1857, the day before the suspension of the Act of 1844. From that statement it appears that, while the brokers' bills under discount were 5,000,000*l.*, the total amount at call with all the bill-brokers with whom that bank had transactions amounted only to 500,000*l.* Let us suppose that all the other London joint-stock banks had an equal amount so placed in proportion to their respective deposits. On the 30th June, 1857, the latest possible return previous to the 11th November, the total deposits of all the banks amounted to 43,100,724*l.*, and those of the London and Westminster Bank were 13,913,058*l.*

Thus we find that the deposits of the London and Westminster Bank were about one-third of the whole; and if the deposits of the other banks with the bill-brokers were in the same proportion, they would amount altogether to about 1,500,000*l.* Now let it be supposed that these deposits are all made with the three principal houses above mentioned, then we have the following results:—

Deposits of Messrs. Overend and Co., Messrs. Alexander and Co., and Messrs. Sanderson and Co.	£15,500,000
Deduct ditto lodged by the London joint-stock banks	1,500,000
Lodged by other parties	£14,000,000

Who would not have imagined, from the language of the Report, that the main deposits in the hands of the bill-brokers were those lodged by the London joint-stock banks, and that "the other monies deposited by their other customers" were a much smaller amount?

The language of the Committee would seem to imply that vast sums deposited at interest with the joint-stock banks were withdrawn during the crisis. As the Committee were familiar with the published accounts of the joint-stock banks,

and had already stated the amount of the total deposits in June, 1857, they might as well have stated those of December, 1857.

On June 30, 1857, the total lodgments were .	£43,100,724
On Dec. 31, 1857, the amount was	41,271,115
Showing a reduction of	£1,829,609

Thus the reduction between these two periods was less than the one twentieth part of the total deposits; a sum that put the banks to so little inconvenience that they were at the same time "adding to their reserves, both in their own tills and in the Bank of England."

From what we have stated it may be inferred that the joint-stock banks of London were established in compliance with the wants of the community. They were indebted for their success to the wisdom and prudence with which they were administered. Their rapid prosperity in recent years has arisen from the increased wealth of the country, and the prevalence of a spirit of commercial activity, and has been accelerated by the high rate of discount charged by the Bank of England. While the Bank of England charged a high rate of interest to those who wished to borrow, the joint-stock banks were enabled to allow a high rate to those who wished to lend. If the prevalence of a high rate of interest influences the foreign exchanges, and thus prevents the exportation of gold, then the joint-stock banks co-operated with the Bank of England in producing that effect. The high rates were not the cause, but the effect of commercial speculation—and it was not until after the adoption of these high rates that the joint-stock banks obtained their "vast deposits." These sums were employed in legitimate banking operations, in the same way probably as they would have been employed had they been placed in other banks. They could not have been invested in inconvertible securities, as the deposits were repayable on demand, or at a short notice. And the readiness with which, during the panic, they paid enormous amounts into the Bank of England, shows that their funds were in an available state. Nor could they have been

reckless in their investments, for then they must have made large losses. But when the pressure was all over, we find the London joint-stock banks had paid off all their losses out of the half-year's profit, with scarcely any difference in the rate of dividend distributed to their shareholders. Experience has shown their system to be so advantageous to themselves, to the Bank of England, and to the public at large, that they can have no reason to make any change.

2. The Bill-Brokers.

Bill-brokering in its present form was commenced about half a century ago. The house of Messrs. Overend and Co. was formed in the year 1807, under the firm of Richardson, Overend, and Co. The partners were, Thomas Richardson, a clerk in the banking-house of Messrs. Smith, Wright, and Gray (afterwards Esdaile and Co.); John Overend, a clerk to Mr. Joseph Smith, a woollen-factor; and Samuel Gurney, then twenty-one years of age, the second son of Mr. John Gurney, a partner in the Norwich Bank. This bank was established in the year 1770, by Mr. Henry Gurney, who was succeeded by his son, Mr. Bartlett Gurney, who, in the year 1803, took into partnership his cousin, Mr. John Gurney, and several other members of his family. Mr. John Gurney had previously been a woolstapler and spinner of worsted yarn. In this character he was acquainted with Mr. Joseph Smith, who was extensively connected with the trade of Norwich, and was engaged by the Norwich Bank to employ their surplus funds in discounting bills for his numerous connections. This business became so extensive that, upon the suggestion of John Overend, a firm was established expressly for this kind of business, under the superintendence of the Norwich Bank. Mr. Samuel Gurney had, for three years previously, been a clerk to Mr. Fry, who had married his sister, the celebrated Mrs. Fry. After the death or retirement of Mr. Richardson the firm was Overend and Co., which is the name it still retains. On the death of Mr. Overend, Mr. Samuel Gurney became the senior partner, until his death in the year 1856. He was succeeded by Mr.

David Barclay Chapman, who retired from the firm on the 31st December, 1857.

The panic of the year 1825 was remarkable for a distrust of bankers. Several London banks failed, and according to Mr. Horsley Palmer no fewer than eighty banks in the country; and many more would probably have failed, but for the assistance they obtained from the Bank of England. After this event the London bankers changed the mode of their investment. Instead of employing their surplus funds in the purchase of Government securities, and discounting at the Bank of England, they placed their surplus funds on deposit with the bill-brokers, and ceased to discount with the bank. The country bankers did the same. By far the larger portion of this kind of business was obtained by Messrs. Overend and Co. They thus became the bankers of the London and the country banks. There was now no connection between the London bankers and the Bank of England, except so far as some of them might find it convenient to have a current account, or, as it was called, a drawing account with that establishment. When the bankers had any surplus funds they placed them on deposit with Messrs. Overend and Co., and when they had occasion they withdrew them from Messrs. Overend and Co. This arrangement made the London bankers directly independent of the Bank of England. Mr. George Carr Glyn was examined before the Bank Charter Committee in the year 1832, and speaking for the London bankers generally, he said, "We do not feel the slightest dependence on the Bank of England, nor do we feel the slightest obligation to it in any way. We rather consider ourselves the very best customers, except Government, which the Bank of England has."

The second house in point of time was Messrs. Sanderson and Co. Mr. Sanderson was originally in the house of Messrs. Overend and Co., but left them and formed a separate establishment in the same line of business. He acquired wealth —became a Member of Parliament—married the daughter of a nobleman—and stopped payment in the year 1847. But he paid off all his creditors—took into partnership Mr. Sande-

man, who was previously a stockbroker—went on again—and stopped payment in 1857. The house was now insolvent, and was "crumbled into atoms." It was wound up under the inspection of three of its creditors, of whom two were private bankers. The following statement of their liabilities is taken from the *Bankers' Magazine* for January, 1858:—

	£	s.	d.
Deposits secured by Bills of Exchange . .	2,810,008	5	3
Ditto ditto ditto, less 7,658*l.* 15*s.* 11*d.*	237,864	5	4
Ditto unsecured	378,827	14	10
	3,426,700	5	5
Bills re-discounted not yet due	2,015,585	2	11
Total liabilities	5,442,285	8	4

The founder of the house of Messrs. Alexander and Co. was Mr. Alexander, the father of the present partners, who was previously the chief clerk in the private bank of Messrs. Robarts, Curtis, and Co.

There are other bill-brokers in London besides those I have mentioned, but they do not so generally take large amounts on deposit. Two joint-stock companies, the National Discount Company and the London Discount Company, have recently been formed to carry on the same kind of business.

The charges brought by the Report against the bill-brokers are that they have a vast amount of deposits—that these deposits bear interest and are repayable on demand—that they carry on their enormous transactions without any reserve—that they give facilities to the circulation of fictitious bills—that they discount for the country joint-stock banks, upon the strength of their endorsements, without reference to the other parties to the bills—and that during a pressure they make heavy demands for discount upon the Bank of England, and thus place in jeopardy the Act of 1844.

The Committee state that the five houses who contributed more than any others to the commercial disaster and discredit of 1857, were the three joint-stock banks—the Borough

Bank, Liverpool, the District Bank, Newcastle, and the Western Bank at Glasgow—and the two discount houses, Messrs. Sanderson and Co. and Messrs. Bruce and Co. The Committee very properly made a minute examination into the affairs of the joint-stock bank; but made no similar examination into the affairs of the bill-brokers. Had they done so, they might have ascertained the accuracy of those accusations brought against the bill-brokers—might have traced the nature of those transactions that take place between them and the London bankers—and might have made useful suggestions for the improvement of that kind of business. And as it was gratifying to the joint-stock banks generally to know that the failure of these three banks had arisen from the misconduct of individuals and not from any defect in the principles of joint-stock banking, so, doubtless, it would have been gratifying to the existing bill-brokers to know that the failure of two of their body arose only from their own misconduct and not from any defect in the principles on which their business is generally conducted.

The Bank have now closed all discount accounts with bill-brokers. These accounts were first allowed in the year 1830, and thus the brokers were enabled to carry on their business without any reserve. The Bank, like any other banker, has an undoubted right to open or close such accounts whenever she pleases, after giving the parties fair notice of her intention. It is not a matter of the slightest importance to the public. If the bill-brokers have the vast deposits ascribed to them, it will be their own fault if they do not render themselves self-dependent. From their extensive connexion with the banking interest in London and the country, they form too important a portion of our monetary system to be easily "crumbled into atoms." The system by which the superabundant capital of agricultural districts is transferred to be employed in the manufacturing districts is a most excellent system. We know of no better means of making this transfer than by the re-discount of bills of exchange; and the bill-brokers are the agents by whom these operations are effected. That this system may be abused by

the creation of fictitious bills is no new discovery. We denounced this abuse ourselves many years ago. But neither bill-brokers nor bankers are able at all times to detect such bills. Hence they are sometimes deceived, and consequently suffer loss.

3. The Bank of England as a Central Bank of Deposit.

The Bank of England is a bank of deposit. She receives money from individuals in the same way as the joint-stock and private banks of London, and like them she makes a profit on her deposits, either by investments in transferable securities or by advances and discounts to her customers. Beyond this she is a central bank of deposit. By this we mean that she receives deposits from the other London banks. All the London banks who are members of the Clearing-house have accounts at the Bank of England, and settle their claims upon each other by transfers from these accounts. Other London banks who are not members of the Clearing-house have similar accounts, and pay the demands of the City bankers by cheque on the Bank of England.

The London joint-stock banks have increased the power of the Bank of England as a central bank by extending the practice of opening current accounts to a less wealthy class of the community—by granting interest on small sums lodged on deposit—by opening accounts with the Bank of England —and by their admission into the Clearing-house. Previous to this last event the joint-stock banks presented all their bills and cheques at the counters of the respective clearing bankers three times a-day, and received payment in bank notes. On the other hand, each clearing-banker presented his bills and notes at the same hours on the joint-stock banks, at their respective counters, and received payment in bank notes. To meet the claims made upon them daily by the private banks, the joint-stock banks had to keep in their tills a larger amount of bank notes than they would have kept had they been members of the Clearing-house. And, on the other hand, each clearing-banker had also to keep a larger amount of bank notes to meet the claims made upon him at his

counter by the joint-stock banks. All the branches of joint-stock banks pay the claims upon them from the City banks by cheques on their head office. They have thus the benefit of the Clearing-house, and settle the claims upon them without the intervention of bank notes. The Southwark branch of the London and Westminster Bank has a place at the Clearing-house as an independent bank. The joint-stock banks have also co-operated with the Bank of England in the arrangement whereby the Custom-house duties are paid by cheques instead of bank notes. Any party having to pay duties may obtain his banker's cheque upon the Bank of England for the exact amount he has to pay, and this cheque is received at the Custom-house.

This arrangement, whereby the Bank of England becomes a central bank of deposit, is attended with several important effects. One effect is that the banking business of London is conducted with a less amount of bank notes. To illustrate this, let us suppose that there are ten banks in London, each of whom has 1,000,000*l.* of deposits, and who keeps in its till 100,000*l.* of bank notes. Here the total deposits are 10,000,000*l.*, and the total reserve of bank notes 1,000,000*l.*; being one-tenth. Now let each of these banks open an account with a central bank,—keep only 10,000*l.* in its till, and lodge the other 90,000*l.* in the central bank. Then the ten banks will have in their till 100,000*l.*, and in the central bank 900,000*l.* But, suppose the central bank employs two-thirds of its deposits and holds one-third as a reserve in bank notes. Then, in consequence of these ten banks having opened an account with the central, the total amount of bank notes held as reserve against 10,000,000*l.* of deposits is reduced from 1,000,000*l.* to 400,000*l.*,—that is, 100,000*l.* in the tills of the ten banks, and 300,000*l.* in the central bank. The 600,000*l.* thus economised may be employed profitably for the central bank, and also for the advantage of the community.*

* We have employed the numbers 10 and 1,000,000*l.*, and the proportion of one-tenth to simplify the illustration of the principle; but if different data are taken, of course the result will vary accordingly.

Another effect of this system is, that the importations or exportations of gold have no effect upon the amount of notes in the hands of the public. When notes are issued by the issuing department of the Bank of England in the purchase of gold, they are lodged on deposit with some banker, who again lodges them on deposit in the banking department of the Bank of England. And, on the other hand, when gold is demanded in payment of her notes from the issuing department, the amount of notes in the hands of the public is not diminished, as these notes have been previously obtained from the banking department in payment of its deposits, or issued in the form of loans or discounts.

Another effect is, that the Bank has no power to increase or diminish the amount of notes in her hands. If she buys, say a million of stock, and issues notes in payment, those notes will immediately be paid into some bank, who will lodge them on deposit; and if she sells a million of stock, and receives notes in payment, those notes would first be withdrawn from her deposits. But probably in neither case would any notes be issued or received—both transactions would be effected by cheques. The only result would be that the deposits would be increased or diminished, and the reserve of notes would remain the same. Were she to discount 1,000,000*l.* of bills, the operation would be similar. She would hold a million more of bills, and be indebted a million more for deposits, and the amount of notes in her hands would remain unchanged. But as she charged discount on the bills, and allowed no interest on the deposits, the discount would be so much profit.

Another effect is, that the transactions between bankers, or between bankers and individuals who keep bankers, would have no effect upon the amount of notes in the Bank of England. This is self-evident with regard to the banks who settle their claims upon each other at the Clearing-house. Each bank strikes a balance at the close of the day. If it owes money, its account is debited at the Bank of England. If it has money to receive, its account is credited at the Bank of England. It is clear that the total amount of credits

must be exactly equal to the total amount of debits—all the transactions are settled by transfer, while the total amount of deposits by all the banks at the Bank of England, and the amount of her notes on hand, remain the same as before. But if a banker does not clear, but keeps an account with the Bank of England, this may make no difference. For if he receive money he will lodge it with the Bank, and if he pay away money he will withdraw it from the Bank, and the party with whom he has these transactions may have corresponding transactions with another banker who also has an account with the Bank of England.*

Another effect is, that any change in the amount of notes in the hands of the public causes a correlative change in the amount of notes in the banking department of the Bank of England. It is certain that all the notes issued from the issue department must remain either in the hands of the public or be deposited in the banking department, and any means that may be employed to economise the notes used by the public will in the same degree increase the notes in the banking department. And the extension of the deposit system, by which people put their money into a bank instead of keeping it in their pockets, does thus economise the notes. But it does not merely economise the notes, it economises the coin in the same way—and thus all the surplus notes and coin find their way into the Bank of England. If, from the increase of population, or trade, or wealth, the community require a larger amount of notes in order to carry on their operations of buying or selling, then this increased amount will cause a corresponding diminution of notes in the Bank of England. This has actually been the case for some years past with regard to notes of 5*l.* and 10*l.*, and consequently the amount of these notes in circulation has much increased; but if from opposite causes the amount of notes in the hands of the public is diminished, then the amount of notes in the Bank will be increased. This has taken place as stated in

* Some of the West End bankers pay the City banks by cheques on the Bank of England, or on some City banker; but the oldest banks in Fleet Street, Strand, and Charing Cross still make such payments in bank notes.

the Report by means of the admission of the joint-stock banks into the Clearing-house, and the amount of large notes in circulation is thereby diminished.

Now, what is the effect of this deposit system in a season of pressure? It must be recollected, that the Bank of England, like all other banks of deposit, is also a bank of discount. To use the language of Mr. Hubbard, "The reserve in the banking department of the Bank of England represents the uninvested deposits of the Bank of England, which it holds at the call of its constituents." Now, if the Bank discounts bills, and the parties take the notes thus obtained to the issue department and demand gold, which they send to France, then the operation takes place which we have just described,—the gold in the issue department is diminished, and to the same extent the notes in the banking department are also diminished. When this operation is going on too rapidly, the Bank will raise her rate of discount, in order to render it less profitable. But this may cause an excitement that shall increase the applications for discount for home purposes. These discounts, as we have explained, may be met by transfers, and merely cause an increase of deposits; but if the excitement extends into the country, and the country banks desire a supply of notes to meet a possible run, then notes can be obtained only from the banking department, and will, of course, diminish the reserve. In the same way, if the pressure on the London banks should not be merely a commercial pressure, when their customers withdraw money to employ elsewhere, but a banking pressure, as in 1825, where the parties withdrew their money and hoarded it, for fear their banker should fail, then must the sums thus hoarded be derived from the Bank of England and diminish her reserve. Had the efforts made in November, 1857, to get up a run upon the London joint-stock banks been successful, they would thus have added considerably to the embarrassments of the Bank of England. Not only might the deposits of the joint-stock banks have been withdrawn, but this excitement might also have occasioned a run upon the private banks, and their deposits might also have been

withdrawn; and had any one bank been unable to meet the demand, its failure would have caused additional demands upon other banks. It seems, therefore, clear that in proportion as we conduct our monetary transactions upon a system of transfer, and supersede the use of coin or bank notes, in such proportion will be the difficulties in seasons of panic, unless some bank be authorized by the Government to issue an amount of bank notes adequate to meet the wants of the occasion. Under the Act of 1844, the Bank of England has no such power; and though she may refuse discounts or advances to other parties without endangering her own safety, yet as soon as she is unable to pay off her deposits when payment is demanded, she must, like other banks in similar circumstances, suspend payment. But while we thus admit that the deposit system of banking, by enabling transactions to be conducted with a less amount of bank notes, may increase the severity of a pressure in which bank notes are demanded, we must contend that the system, by diminishing the necessity for notes, contains within itself in a very great degree the means of avoiding that demand. In the recent pressure the deposits from the London bankers would have enabled the Bank of England to meet any demand for discounts without the suspension of the Act of 1844, had it not been for the gold required for Ireland and Scotland. This demand from Ireland and Scotland was an accidental circumstance, and was by no means necessarily connected with the pressure. And even as it was, the Bank availed herself of the Government Letter only to the extent of 928,000*l.**

The Report states that, during the pressure,—

"The banks limited their discounts almost exclusively to their own customers."

"The deposits of the London bankers, which in ordinary times average about 3,000,000*l.*, continued to rise during the commercial pressure, and amounted on the 12th of November to 5,458,000*l.*"

* While we are anxious that the Bank of England should retain her position as the central bank of deposit, we are equally anxious that she should retain her character as a bank of issue. Lord Overstone says—"I dislike the expression of the business of issue being in the hands of the Governor and Company of the Bank of England. They are merely the clerks who have to do the business which the law has ordained;" and Mr. Neave, the Governor, says—"I

"Speaking of the general discount market, the Governor of the Bank stated, 'Discounts almost entirely ceased in London, except at the Bank of England.'"

Although the above three sentences occur separately in the Report, they are intimately connected, as illustrative of the character of the Bank of England as the central bank of deposit.

You must remember, that all the London banks are banks of deposit, and all their deposits are payable on demand; also, that they are all banks of loan and discount, and give their customers such accommodation as they may require. After having done this, the banks, in ordinary times, discount bills for the bill-brokers; but when a pressure occurs, they cease to discount for the bill-brokers, and place their funds in the Bank of England. The brokers then take their bills to the Bank of England, who discount them with the funds they had previously obtained from the London bankers. You see the beauty of the system. Had the London banks employed their surplus funds as before, in discounting for the bill-brokers, and afterwards their depositors had demanded a portion of their deposits, they might have been placed in a position of difficulty; and had a single bank suspended payment at such a time it might have caused great embarrassment, not only to the other banks, but also to the Bank of England. But the Bank of England, having unbounded credit, was in no dread of a RUN, and hence could fearlessly employ those funds the London banks had placed in her hands, and that too at a great profit, for she allowed no interest on her deposits, while she charged ten per cent. on her discounts. It is thus obvious that the public wants during the pressure were met by a union of the banking

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do not consider ourselves a bank of issue." We do not see how the Bank of England ceases to be a bank of issue, merely because her issues are limited or regulated by Act of Parliament. All the private and joint-stock banks of issue in England, and all the banks of issue in Scotland and Ireland, have their issue limited or regulated by law. Have they also ceased to be banks of issue? We fear this doctrine is brought forward as a stepping-stone to the advocacy of a Government bank of issue, one of the greatest evils with which a nation can be scourged.

interest, the joint-stock and private banks of London, and the Bank of England. The Bank of England derived neither funds, nor power, nor credit from the Government: the Government Letter merely struck the manacles from her hands; it added nothing to her strength. Nor did she prove unequal to the occasion. We object to the language of the Report in describing in such magniloquent terms the acts of the Bank, as though they were efforts almost beyond her power. What can we think of an advance of 700,000*l.* described as *no less a sum than* 700,000*l.*? What think we of the following amplification of 21,600,000*l.*?—"A sum exceeding the whole amount of their deposits, both public and private; a sum nearly threefold the amount of their advances in July, when the rate was reduced to 5½ per cent., and more than double what they had advanced on the 27th October, when the first bank failed." Had the Committee wished for further amplification, they might have stated that this sum was just eighteen times the whole capital of the Bank when it was formed in the year 1694; but after all these comparisons, the sum of 21,600,000*l.* is actually neither more nor less than it was before. But did the Committee really think that they exalted the power of the Bank of England by employing all this verbiage to describe the simple fact that during the pressure the highest amount of discounts held by the Bank of England was 21,600,000*l.*, a sum greater only by 777,000*l.* than the whole of her deposits?

The Committee had stated, that our exports had increased from 60,110,000*l.*, in the year 1845, to 122,155,000*l.* in 1857; that the imports of gold and silver from gold-producing countries had been within seven years 107,500,000*l.*, of which 80,700,000*l.* remained in Europe; that nine London joint-stock banks had accumulated 43,100,724*l.* in deposits; and yet it represents an advance of 21,600,000*l.* by the Bank of England as somewhat enormous, and this too when the advance is not made in money but by transfers,—when the joint-stock and private banks of London have placed 6,000,000*l.* in her hands on deposit,—and when she is released from the shackles imposed by legislation on her issues.

In the same strain, the Committee bemoan her hard fate in being "the bank of final resort," "the bank on which everything depended," &c. As a member of "The Company of the Bank of England," we like not to hear our Bank spoken of in these compassionate tones. What is the reason that in the pressures that occurred previous to 1844 we had none of these querulous complaints? After the pressure of 1836 we read as follows:—

"In the facts we have thus detailed, we see another very striking example of the advantages which the commercial world derives from the existence of such a body as the Bank of England, possessing, in its own boundless credit, the ample means of arresting the fatal progress of discredit in the mercantile community, and unfettered by any rules of conduct so strict and absolute as to prevent the prompt and efficacious application of those means in whatever manner may be best adapted to the existing emergency. It is plain that no power analogous to this could be confided to any Government establishment, or be required by any banking institution of recent origin."—*Morning Post, April* 7, 1837.

These views of the Bank of England as a bank of deposit may assist us in forming an opinion of the effect of some of the operations mentioned by the Committee. When we are told that the Bank between the 11th and the 21st November increased her discounts from 15,900,000*l.* to 21,600,000*l.*, we may ask what amount of notes these operations took out of her reserve? When we are told that the bill-brokers held no reserve, we may ask if on the 12th November they had a reserve of 1,000,000*l.* on deposit in the Bank of England, and had drawn in one day no less a sum than 700,000*l.*, would not that have embarrassed the Bank as much as granting 700,000*l.* on discount? When we are told that the London bankers ceased to discount except for their own customers during the crisis, and paid their funds into the Bank of England, we may ask if that should cause any increased difficulty to the Bank of England, seeing that while the London bankers sent her the bills to discount, they also sent her the money to discount them? When we are told that money lodged with the joint-stock banks at interest may be withdrawn during a crisis, we may ask how that increases the difficulties, if the money

thus withdrawn is invested in Government securities, or in any other way that causes it to be placed in some other bank? or, if the money is taken out to be hoarded, we may ask if the money having been lodged at interest or not at interest, could make any difference in the public inconvenience thus occasioned? And when we are told that the directors would not have made the advances they did if the amount of gold had been much less than it was, we may ask, What amount of gold was required to make all these advances; and whether, between the 11th and 25th of November, the amount of gold had not increased?*

4. The Joint-stock Banks in relation to the Act of 1844:—

None of the joint-stock banks, either in London or the country, have expressed any opinion hostile to the Act of 1844. When the deputation waited on Sir Robert Peel we determined to abstain from canvassing the principle of the Act, and to ask only for a modification of some of its provisions. I had previously written a letter to the joint-stock banks advising them to adopt this course.† Again, in the year 1848, the joint-stock banks sent no witness to be examined before the Committee on Commercial Distress. We did not think it advisable that, as a body, they should interfere with public questions, except such as had a special reference to themselves as joint-stock banks.‡ The London joint-stock banks, neither individually nor collectively, have

* Mr. Cardwell put the following leading question to Mr. Neave:—

"That assistance you would not have ventured to give, even under cover of the letter, if the bullion in your possession had been at a much lower amount than that at which it actually stood?—No. I do not think we should have given it."

We presume Lord Overstone meant to express the same sentiment in the House of Lords when he adduced a *sorites* to prove that if the Act of 1844 had never existed it could not have been suspended. "Without that Act the public would not have permitted the Bank of England to raise its interest to anything like ten per cent. If the interest had not been raised to ten per cent. the exchanges would not have been corrected, the store of bullion would have diminished, and the Government could not have issued the letter."

† "As practical bankers we contend that experience is the only test of the soundness of a theory. Let, then, 'the currency principle' be tried by this test. If it succeeds, the joint-stock bankers, in common with every other class of the community, will share the advantage."—*Letters of Nehemiah.*

‡ See "Practical Treatise," p. 117.

ever taken any steps on the question, and it will readily be believed that when they adopted, in the year 1834, the very innocent regulation of allowing interest on deposits, they had not the slightest intention in so doing of causing the suspension of an Act that was not passed until the year 1844.

It may, then, be asked, Why should the advocates of the Act of 1844 assail the joint-stock banks? But who else could they assail? Theoretical philosophers* are seldom convinced of the unsoundness of their theory by any disasters that may attend its operation. Those disasters are attributed to other causes, and the infallibility of the theory is still maintained. They had then to assign a cause for the suspension, in November, 1857, of the Act of 1844. What could be the cause? It could not be the Act itself—that must not be blamed. Could the Directors of the Bank of England be blamed, as in 1847? No—for they raised the rate of interest to ten per cent. Could the Government be blamed? No—the necessity for their interference was too obvious. Could the country banks be blamed for issuing an excessive amount of their notes? No—for the amount of their issue is limited by law. Who then could they blame? In a frenzy of vexation they fastened on the London joint-stock banks; and whatever we may think of the wisdom of the choice, some credit may perhaps be due to their humanity in selecting a scapegoat who could sustain but little injury from their maledictions.

This is not the first time that the evils of a commercial crisis have been attributed to the joint-stock banks. After the panic of 1836, Mr. Horsley Palmer, then a leading

* The advocates of the Act of 1844 may be divided into two classes—the theoretical advocates, who defend the Act, as they say, "upon principle;" and the practical advocates, who think that under the management of the Directors of the Bank of England, and with the certainty that it will be suspended by the Government whenever necessary, the continuation of the Act is, upon the whole, the best measure that can at present be adopted. In this latter class we should place the Directors of the Bank of England. The defects of the Act were forcibly pointed out by Mr. Weguelin and Mr. Dobree, in their letters to the Chancellor of the Exchequer in November, 1856.

director of the Bank of England, published a pamphlet in which he stated that the excessive issues of the joint-stock banks had "neutralized the influence of the contraction of the Bank of England, and occasioned a serious, it may be said, ruinous pressure, on the money-market." In the year 1857, Mr. Weguelin and Mr. Hubbard,* two directors of the Bank of England, gave evidence before the Bank Acts Committee, and stated that neither the joint-stock banks, nor any other banks, had the power of issuing their notes to excess. We should like to know what the bank directors twenty years hence will think of the doctrine that the allowing of interest on deposits by the London joint-stock banks was the cause of the crisis of the year 1857. Seasons of commercial distress are fruitful of unsound opinions. An interesting volume might be written upon the romantic notions which at such a time start into existence, and are abandoned and forgotten as soon as the excitement is over.

Happily for the Committee, their Report was not written in the month of November. Although it exhibits considerable dexterity in the art of selecting, arranging, and omitting facts in such a way as to countenance a foregone conclusion, yet the Committee have not avowedly adopted that conclusion.† The allegations of the Report against the joint-stock banks, though stated in a tone of censure, are not in themselves matters of reproach, and when we notice the manner in which the Committee refer to other parties, we are compelled to think that, in fact, London joint-stock banking is the Hero of the Report. The private bankers

* "I hold you can no more regulate the amount of circulation in a country, whether metallic or otherwise, than you can regulate the winds."—*Mr. Hubbard.*

Mr. Weguelin's evidence is distinguished by its practical business character, and Mr. Hubbard's by the clearness of its expositions and the beauty of its style.

† As a corrective to the impressions the Report is calculated to produce, we would recommend to the special attention of our readers the evidence given in reply to the questions proposed by Mr. Wilson, the late Secretary to the Treasury. Scarcely any portion of this evidence has been embodied in the Report.

of London are scarcely mentioned.* The bill-brokers are referred to always in the language of disparagement.† The merchants introduced to our notice are chiefly speculators, kite-flyers, or something worse;‡ and even the Bank of England is alluded to in language which usually denotes that kind of compassionate respect with which we regard Majesty in distress.§ The description ‖ of her state is really touching. When powerfully invaded by foreigners she is compelled to send strong detachments to preserve tranquillity in Scotland and Ireland.¶ Wafted across the Atlantic arrives a MALARIA** which fatally strikes her outposts and spreads terror through the land. In her capital she is besieged by hungry bill-brokers and starving citizens, whose cravings she is unable to supply.†† While thus scourged with war, pestilence, and famine, she becomes suddenly paralyzed by the consciousness that her only means of succour was, by an

* Report of the Committee, paragraph 7.

† Ibid. paragraph 17.

‡ Ibid. paragraphs 30–38.

§ Ibid. paragraph 18.

‖ The reader will perceive that for this representation we are mainly indebted to the poetic imagination of Lord Overstone, though it is borne out by the matter-of-fact statements of the Committee.

¶ "Supposing this country, when menaced with foreign invasion on its southern shores, was required to detach a large force to meet an insurrection in Scotland or Ireland, would not its power of defence be weakened? That was precisely the case of the late disturbance in the monetary system. At the critical moment when all its forces were required to maintain it against foreign pressure, there came a demand for 3,000,000*l.*, for no really useful purpose, but solely in consequence of these local issues of notes in Scotland and Ireland."—*Speech of Lord Overstone. Report, paragraph* 23.

** "The panic in the United States arose and extended to this country—and where did the *malaria* first strike us? At our outposts, at Liverpool and Glasgow, where joint-stock banks soon proved the *unsoundness* of their position." *Ibid. Report, paragraphs* 15–19.

†† "If the provisions of the people fell short, and prices rose enormously, what would be thought of a Government who said, 'You have been suffering great inconvenience from a shortness of provisions, and paying higher prices than usual; and seeing your difficulties, and being convinced that we ought not to allow those difficulties to proceed too far, we have undertaken to store provisions ourselves, and to supply all and every one to as great an extent as they choose upon the condition of their paying the present price?' That was precisely what had been done by the issuing of this letter. The Irish famine was an analogous case."—*Ibid. Report, paragraph* 17.

Act of the States-General in 1844, placed beyond her power. Overwhelmed with calamity, she falls helpless into the arms of the Minister of Finance. He counsels her to violate the restrictive law, and promises to obtain an indemnity. She follows his advice. Irretrievable ruin is prevented,* and the commercial atmosphere is cleared.

On the other hand, London joint-stock banking is presented to us with all the energy and freshness of a Youthful Giant. It is he who, in the course of ten years, quintupled his deposits †—it is he who has increased the productive capital of the country, by collecting together and turning to good account the scattered resources in the hands of individuals ‡—it is he who is said to have supplied the funds with which the bill-brokers carried on their enormous transactions §—it is he who, in the midst of the crisis, poured his treasure into the lap of the Bank of England,‖ and thus enabled her to supply the wants of the community with a less departure from the existing law than would otherwise have been required. Recollecting, as we do, the profound contempt with which the establishment of joint-stock banks in London was first regarded, we cannot but feel gratified at the homage now rendered to their power by a parliamentary committee. May the Youthful Giant, to whose nurture and training we have administered during the last quarter of a century, act with increased energy in every future crisis, and receive additional honour from every future committee! With these aspirations, we bid our readers farewell.

* "If the Act had been maintained only twenty-four hours longer . . . irretrievable ruin would have followed."—*Lord Overstone.*

† Report, paragraph 8. ‡ Ibid. paragraph 8. Sir G. Lewis's Speech.

§ Ibid. paragraphs 8–17. ‖ Ibid. paragraph 17.

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